TWENTY-SECOND ANNUAL REPORT

OF THE

REGENTS OF THE UNIVERSITY

OF THE

STATE OF NEW YORK,

ON THE CONDITION OF THE

ate Cabinet of Natural History

AND THE

HISTORICAL AND ANTIQUARIAN COLLECTION ANNEXED THERETO.

Transmitted to the Legislature April 10th, 1869.

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1869.

STATE OF NEW YORK.

No. 87.

IN SENATE,

April 10, 1869.

TWENTY-SECOND ANNUAL REPORT

THE REGENTS OF THE UNIVERSITY OF THE STATE OF NEW YORK, ON THE CONDITION OF THE STATE CABINET OF NATURAL HISTORY AND THE HISTORICAL AND ANTIQUARIAN COLLECTION ANNEXED THERETO.

UNIVERSITY OF THE STATE OF NEW YORK:

OFFICE OF THE REGENTS,
ALBANY, *April* 10, 1869.

the Hon. ALLEN C. BEACH,
President of the Senate:

Sir—I have the honor to transmit the Twenty-Second nual Report of the Regents of the University, on the te Cabinet of Natural History and the Historical and tiquarian Collection annexed thereto.

I remain, very respectfully,
Your obedient servant,
JOHN V. L. PRUYN,
Chancellor of the University.

REGENTS OF THE UNIVERSITY.

[*Ex-Officio* Trustees of the State Cabinet of Natural History.]

JOHN V. L. PRUYN, LL.D., *Chancellor.*
GULIAN C. VERPLANCK, LL.D., *Vice-Chancellor.*

Ex-Officiis.

JOHN T. HOFFMAN, *Governor.*
ALLEN C. BEACH, *Lieutenant-Governor.*
HOMER A. NELSON, *Secretary of State.*
ABRAM B. WEAVER, *Superintendent of Public Instruction.*

ERASTUS CORNING,
PROSPER M. WETMORE,
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ROBERT G. RANKIN,
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ROBERT S. HALE,
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J. CARSON BREVOORT,
GEORGE R. PERKINS, LL.D.,
ALEXANDER S. JOHNSON, L
GEORGE W. CURTIS, LL.D.,
WILLIAM H. GOODWIN, D. D.
SAMUEL B. WOOLWORTH, LL.D., *Secret*
DANIEL J. PRATT, *Assistant Secretary.*

STANDING COMMITTEE OF THE REGENTS,

Specially charged with the care of the State Cabinet.

1869.

(THE GOVERNOR) Mr. HOFFMAN,
THE SECRETARY OF STATE,
Mr. CLINTON,
Mr. CORNING,
Mr. JOHNSON,
Mr. BREVOORT,
Mr. RANKIN.

CURATOR:

JAMES HALL, LL.D.

REPORT.

TO THE HONORABLE, THE LEGISLATURE OF THE STATE OF NEW YORK:

The Regents of the University, as trustees of the State abinet of Natural History, respectfully submit this their wenty-Second Annual Report.

The Report of the Curator, herewith communicated, hibits the progress of the Cabinet during the year 1868, d its present condition.

That of the Botanist shows the work of his department, d commends continued provision for that work to the vorable consideration of the Legislature.

The Cabinet in all its departments has been enlarged and proved, and may be looked upon with just pride by the tizens of the State, both in its scientific relations and as hibiting the extensive and varied natural productions of e State.

The usual statement of receipts and expenditures is here- ith communicated.

All of which is respectfully submitted, on behalf of the egents,

JOHN V. L. PRUYN,

Chancellor of the University.

ACCOUNT CURRENT, 1867–8,

WITH APPROPRIATION FOR THE STATE CABINET OF NATURAL HISTORY.

Dr.

To balance from 1866–7,	$1,085 95	
To appropriation for 1867–8 (*Session Laws*, 1867, *pp.* 1451, 1244),	2,500 00	
		$3,585

Cr.

By cost of additions to the collections,	$1,567 14	
By chemicals,	145 92	
By books and stationery,	27 15	
By expressage and freight,	79 60	
By salary of Botanist,	416 66	
By trays for shells,	119 15	
By glassware, &c.,	77 44	
By expenses of taxidermist,	63 20	
By contingents,	68 48	
By balance to new account,	1,021 21	
		$3,585

CONTENTS OF THE APPENDIX.

(A.)

REPORT OF THE CURATOR.

the Honorable the Board of Regents of the University of the State of New York:

NTLEMEN—

have the honor to present to you the following communication arding the condition of the State Cabinet of Natural History, h a statement of the work done in the museum, together with a of the additions made to the collections of the several depart-nts during the past year.

The work of the year under the head of the several departments y be stated in a general manner as follows:

With the sanction and approval of the committee of your Board ing charge of the museum, the plaster casts constituting the "ADSWORTH GALLERY" were removed to the third floor, and the ning in that floor closed, thus securing additional space. By this angement these casts were brought upon the same floor with the stodon and Elephant remains from our State, the one occupying eastern and the other the western end of the same room. Among most conspicuous of the casts of the Wadsworth collection are se of the *Schistopleurum* and *Megatherium*, both of which were th American animals of the Pleistocene period, while the Masto- was a North American animal of essentially the same Geological iod.

t a later date, with the consent of Mr. Wadsworth, the cast of skull and tusks of *Elephas ganesa*, a fossil Asiatic species, and the *notherium*, a European species of the same age, were placed on central east side of the same room, and the skull, tusk and lower of the American Mastodon were removed to the western end of room with the Cohoes Mastodon skeleton.

he committee in charge of the museum authorized the purchase n Prof. Ward of a very fine specimen of the Irish Elk (*Megaceras*

hibernicus), together with a cast of the skull of *Diprotodon* Australian mammal), the skull and lower jaw of a young Mastod and the lower jaw of the St. Catharine's Mastodon, which is inter ing from preserving the smaller tusk in the lower jaw.

The *Megaceras* is mounted in the centre of the room, and prese a very fine appearance; while the casts of other European and Asi fossils are arranged on the east side of the centre. This arrangem gives us, on the west or left hand side, as we enter the room, a *No American*, the central part a *European* and *Asiatic*, and the east end a *South American* gallery, chiefly of the larger *Mammalia* the *Pleistocene period*. This plan, with the comparatively sm number of species which we are able to represent, makes a m more satisfactory and instructive arrangement than any other wh we could adopt. In the same gallery with the Cohoes Mastodon propose to arrange all the remains of Mastodon and Elephant wh we have or may obtain from the North American continent. greater part of those we possess are already thus arranged, wh others, which require some preparation, will soon be placed in same position.

I would suggest the propriety of procuring for the European lery, a skeleton of the *Cave Bear* and a few other things of the sa geological age, sufficient to give an expression of the fauna of t period. A few other objects from the South American fauna of same age would add greatly to the interest of the gallery upon t side.

The plan for the disposal of the remaining casts of the Wadsw gallery, in proximity to the South American gallery, will essenti preserve the unity and integrity of that liberal gift to the muse and be quite satisfactory to the donor.

The removal of the Wadsworth gallery from the first floor of museum greatly enlarged the area for the collections of *Geology Palæontology*, illustrating the *New York series*, and has enabled to carry out the plan I had proposed for the arrangement of important part of the museum. By this means we are enable add six table cases of twelve and a half feet in length for *Palæontological* collections, and an extent of about thirty feet of t cases for the *Geological* series, which will give room for a very s factory arrangement of the entire Palæozoic series.

In the Palæontological series the cases have already been ad and the entire collection rearranged and extended to conform to

rged condition. The few spaces in these cases at present left cupied will be properly filled in the course of a few months.

r the extension of the Geological series nearly all the specimens been selected, and temporarily arranged in other cases or in ers, ready to be placed in their proper positions as soon as the cases shall be completed.

ne arrangement of this room being essentially completed, at as to the plan, I have had a diagram of the same constructed a large scale, marking the position and contents of the cases their relation to each other. This diagram, on a smaller scale, a general description of the contents of the cases, is intended company the report to be made to the Legislature.

nsiderable progress has been made in arranging, labeling and ibuting into boxes the duplicate specimens of fossils heretofore ining in drawers of cases in the Curator's room. The several ctions have been numbered 1, 2, 3, etc., and a record of these been kept, together with a list of the species in each collection, he number of individuals of each species in the several collec-. These collections are still so incomplete that I would not mmend their distribution at the present time. During the com-ear I hope to be able to make such progress in this work that y next report I can submit a more complete statement, with a mmendation for the distribution of some part, at least, of the col-ons.

uring the year some additions have been made to the Economic ctions, and the space allotted to the *building stones* and *mar-*n each side of the main entrance hall has been found insufficient eir arrangement. The collections of the coming year will make cessary to provide some other accommodations for the specimens. w specimens have been added to the *Iron Ores* from Northern York, as will be seen by the accompanying lists, but it has been impossible for me to visit that region, as I had intended, for completion of this collection. Some interesting specimens of ore from the Lake Superior region have been donated by Hon. . Morgan.

uring the collection of the larger blocks of ores and building s a considerable number of smaller specimens have been ned, some of which have been added to the Geological series, e others, together with all those collected beyond the limits of State, for want of room to arrange them, have been labeled and

packed in boxes properly marked, and are available at any tim examination and experiment. Some of them have already been in testing the strength of the various kinds of stone.

The *Crawfordsville collection* of Crinoidea and other fossils nearly all been unpacked, the specimens *cleaned*, *numbered* and *tributed* in drawers under their respective designations.

Besides what I have enumerated, there has been much misc neous work done among the collections which can scarcely form of the report, but which enters into the final result in the arra ment and classification of the materials of the museum.

The work of survey and investigation at Cohoes has been e tially completed, and the large map of the river bed and adja parts of the country, showing the ancient and modern pot-holes the position of the Mastodon, has been finished, together with necessary work pertaining to the same subject.

The collection of minerals has been removed from the shelves specimens cleaned of dust, the cases cleaned and the speci returned to their proper places. It has been impossible to give time to a proper rearrangement of this collection which it so needs.

The *Gould Collection* of Shells, which was in part tempor arranged in drawers in the Curator's room in the early part o year, has been finally arranged by Mr. R. P. Whitfield, assiste S. B. Woolworth, Jr., and J. W. Hall, in the cases appropr therefor in the third story of the building. The space occu under glass is about 380 square feet, and a considerable nu still remain in drawers. The specimens as now arranged are much crowded, but we have no alternative at the present time. work of marking this collection with labels which can be through the glass, thus facilitating the means of study and com son by those visiting the museum, will be progressed as rapid the other duties of the museum will permit.

I have heretofore called your attention to the large numb shells from the Smithsonian Institution and other sources, remaining in drawers. We are unable at the present time, or with any prospective arrangement in the room allotted to this de ment, to find space for arranging them beneath glass, or in any that they may be seen by visitors.

The collection of Corals has been arranged in two small ca the window recesses of the third story; and, though compara

pecies are represented, there are among them some fine speci-
, and the whole together offer at least a representation of this
of organisms of which the museum had been entirely destitute
ofore.

r the species of corals obtained from the Essex Institute, a satis-
ry return has been made in a collection of New York fossils,
bering one hundred species, of which a record has been pre-
d.

e *Echinoderms* of the Pickett collection have been arranged and
ed, and offer a tolerable representation of this class of organ-
but a more extended collection is greatly to be desired.

e collection of *Birds' Eggs* has been arranged and classified,
now presents a very satisfactory appearance. It is very desira-
extend this collection, so as to include all our more common
es.

e *Alcoholic Collection*, including Fishes and Reptiles, with
Crustacea and Mollusca, has been for a long time in a very
isfactory condition. In the larger proportion, and, so far as I
, the entire collection had remained in the same alcohol in
it was at first placed, and, in consequence, the fluid had
me turbid and highly charged with oily matter, so that the speci-
were obscured. Fresh alcohol had been added during suc-
e years, and the evaporation of the spirit, leaving the watery
ons, had reduced it in some cases to a strength of thirty-five
es, rendering it unfit for the preservation of the objects con-
d in the jars.

e alcohol of the entire collection has been redistilled, and after
reduced to the proper strength, the specimens have been
ced, and now present a very satisfactory appearance, as well as
safe from decay consequent on the deterioration of the fluid.
edistilling this alcohol, instead of purchasing fresh spirit, we
saved an expense of some three hundred and fifty dollars to
useum.

. Lintner, who has lately come into the museum as an assistant,
aken charge of this collection, and has classified the whole, and
enced the labeling in such a manner as to be instructive to
who wish to study it. I have added to this collection a consid-
e number of species, as will be seen by the appended list; some
se species belong to the New York fauna, and were not before
sented in the museum.

I have likewise added some insects and mollusca, in alcohol, a propose to increase this department so as to embrace the mollus the coast of New York, and some of the fresh water and land sh I propose also to preserve in the same way, for the purpose of st the larvæ of known insects, especially those which have an int in their economic relations.

The collection of Crustacea has been increased by the addition few species, but the department is very imperfectly represented, in those species known to inhabit the State.

In the acquisition and preparation of Skulls, Skeletons, et mammalia, I would report that two skulls of reindeer, a skull o musk ox, and a fine skull and horns of the elk, heretofore in th lection, have been macerated and cleaned and are now read mounting.

I have added to the collection, also, the skull of the black t deer of the West; a skull and part of the skeleton of the buffa skeleton of the antelope and two large skulls of the antelope, a skull of the big horn or mountain sheep.

Mr. Kislingbury, who has been employed by the Regents to c and prepare skeletons of the quadrupeds now or formerly l within the limits of the State, is at work in the museum prep to mount the skeletons he has collected.

I have heretofore called your attention to the very inade space allotted to the *Ethnological* and *Antiquarian* collections. case is now so full as not to allow a proper arrangement or class tion, and many objects in possession of the museum neces remain packed in boxes. A box of specimens received last from the Smithsonian Institution remains packed as it came (though the specimens have been examined), and we have no p means of arranging or displaying the collection.

In view of the great and increasing interest attached to department of knowledge and inquiry, I would earnestly recom that some steps be taken for increasing the space available for objects, and that means be adopted to increase the collection.

The Smithsonian Institution is constantly acquiring large c tions of these objects, and the State Museum of New York easily participate in the distribution which will be made c duplicates, were proper steps taken at this time.

I have heretofore reported the completion of an index c Geological and Palæontological subjects in the Reports on the

binet. At the present time a general index to the reports, includ- the Twentieth Report, is in course of preparation, and will bably be completed in time to communicate with the present nual Report to the Legislature.

Mr. Peck, who is in charge of the Botanical Department, will mmunicate the results of his investigations during the past year.

am unprepared at the present time to communicate the results of scientific investigations on my own part. The duties of the seum (much of the time being necessarily spent in details of no ntific value) have been so onerous during the past two years and alf as to leave very little time for original investigations. I need remind you that no Museum of Natural History can maintain its per standing, in the opinion of the scientific public, without pub- ing the results of investigations in some of its departments; and, hout this, it will soon cease to be of interest to scientific men, or attract the attention of the more intelligent public.

I feel that I need offer no further argument to secure the sanction d coöperation of the Board of Regents in some plan which will ure them an annuul report, showing progress in scientific investi- ions in several of the departments of the museum.

In conclusion, I would beg leave to ask the Regents, or a commit- of the Board, to examine the present condition of the State seum, in its several departments, with a view both to a knowledge the present arrangement, of the materials and condition, and of rning from their own observations its necessities.

I have the honor to be very respectfully

Your obedient servant,

JAMES HALL.

(B.)

DITIONS TO THE STATE CABINET DURING THE YEAR 1868.

I. BY DONATION.

I. TO THE ZOÖLOGICAL DEPARTMENT.

From JOHN BRATT, *West Point, N. Y.*

of the small blue speckled WOODPECKER, excavated in a maple ee, in front of the Academic buildings, West Point, containing, nen opened, five eggs.

From S. T. LIVERMORE, *Albany, N. Y.*

s of a WALRUS, from the Arctic Ocean.
H of a HIPPOPOTAMUS.
of a PORPOISE.

From RICHARD BAKER, *Albany, N. Y.*

EGGS laid by the same hen; the one measuring 1 inch and $1\frac{1}{4}$ hes in its diameters; the other weighing five ounces, and of the ameters of $2\frac{1}{4}$ and $3\frac{1}{4}$ inches.

From HORACE F. BUCKLEY.

ILD BOAR'S TUSK from the Plains of San Joaquin, California.

From S. VISCHER TALCOTT, *Albany, N. Y.*

se-crested Cockatoo (*Phyctolophius rosaceus* Veill).

From TRUMAN H. ALDRICH, *Troy, N. Y.*

llection of LAND AND FRESHWATER SHELLS, made in the vicinity Troy.

II. TO THE BOTANICAL DEPARTMENT.

From W. R. GERARD, *Poughkeepsie, N. Y.*

mens of five species of rare PLANTS.

From G. T. STEVENS, M.D., *Albany, N. Y.*

mens of *Pinus inops* Ait., from Essex Co., N. Y.

From S. H. WRIGHT, M.D. *Penn Yan, N. Y.*

Specimens of twelve species of PLANTS, some of them very rare.

From E. L. HANKENSEN, *Newark, N. Y.*

Specimens of nine species of PLANTS, all desiderata for the Herbar

From G. B. BRAINERD, *Brooklyn, N. Y.*

Twenty-seven specimens of MARINE ALGÆ, neatly mounted, and resenting twenty species.

From T. F. ALLEN, M.D., *New York.*

Specimens of *Wolfia columbiana* Karston.

From V. COLVIN, *Albany, N. Y.*

Specimens of *Hemalia gracilis* James.

From Dr. C. DEVOL, *Albany, N. Y.*

The lower part of the trunk of a young maple, with a portion hemlock trunk attached, through an aperture in which the m had grown.

From Prof. C. JEWETT, *Brooklyn, N. Y.*

Specimens of PLANTS collected about Cooperstown, N. Y., repre ing fifty-six species (received in 1867).

From Hon. G. W. CLINTON, *Buffalo, N. Y.*

Specimens of *Lunularia vulgaris* Mich.

From B. D. GILBERT, *Utica, N. Y.*

Specimens of four species of PLANTS; among them the very *Habenaria rotundifolia* Rich., and *Calypso borealis* Salisb.

From E. C. HOWE, M.D., *Fort Edward, N. Y.*

Specimens of two hundred and eighty-five species, of which two dred and sixty-seven are FUNGI.

III. TO THE GEOLOGICAL AND MINERALOGICAL DEPARTMENT

From the Hon. HENRY NICOL, *Brookhaven, L. I.*

A broken pebble of dark colored Gneiss, of the form of some a inal implement. Found on his farm.

From ISRAEL NUSBAUM, *Albany, N. Y.*

A spheroidal concretion from the Calciferous Sandstone,
A pebble of GRAPHIC GRANITE,
A pebble of banded METAMORPHIC SLATE. Localities not state

From S. B. WOOLWORTH, LL.D., *Albany, N. Y.*

fine specimen of *Modiola concentrica*, from the Hamilton Group. Locality unknown.

From D. S. BLAIR, *Albany, N. Y.*

specimen of COAL PLANT, from Scranton, Pa., 190 feet below the surface, just above the second coal bed.

From Major-Gen. BARNUM, *Inspector of State Prisons.*

block of MARBLE, from the State Quarries at Sing Sing.

From Mr. ROTHOUT, *Albany, N. Y.*

specimen of AURIFEROUS QUARTZ, and a specimen of PITCHSTONE OBSIDIAN, from California.

From THOMAS E. VAN LOON, *Albany, N. Y.*

collection of COAL PLANTS, from Pennsylvania.

From W. D. SWAIN, M.D.

pebble of Conglomerate, and white quartz pebbles in a brown matrix, said to have been found in Albany.

From LEONARD SMITH, *Troy, N. Y.*

cimens of VARIEGATED MARBLE, from Scranton Falls, Vermont.

From WILLIAM SHEPARD, *Clifton Park, N. Y.*

ceous Limestone, of irregular stratification, worn in the form of a one.

From J. C. GOODRICH.

CKBRIDGE LIMESTONE, from the Glendale Quarry, Mass. Sent as sample for foundation of New Capitol.

m Dr. R. L. ALLEN and J. H. WHITE, *Saratoga, N. Y.*

r six-inch CUBES of GRANITE.

From SPENCER DANIELS, *Albany, N. Y.*

SIL. FISH and two fossil CRUSTACEANS, from Solenhofen, Bavaria.

From SETH COVELL, *Saratoga Springs, N. Y.*

ebble of brownish sandstone, which, from its shape and eye-like avities, was supposed to have been a Potato.

From HORACE F. BUCKLEY.

part of a MASTODON TOOTH, from Dry Creek, near Snelling's Ranch, California. Found in a stratum of claystone, sixty feet below the surface.

From Hon. LEWIS H. MORGAN, *Rochester, N. Y.*

A very fine collection of SPECULAR and MAGNETIC IRON ORES, fi
Lake Superior, embracing:

POLISHED ORE (SLIKENSIDES), from Lake Superior Iron Mine.
SLATE ORE, from Lake Superior Iron Mine.
SPECULAR ORE, from Washington Mine; and other specimens
unpacked.

From E. HALL.

HEMATITIC IRON ORES, from Essex Co., N. Y.

IV. TO THE HISTORICAL AND ANTIQUARIAN DEPARTMENT.

From TRUMAN H. ALDRICH, Rens. Poly. School, *Troy, N. Y.*

A small INDIAN HATCHET, said to be from Massachusetts.
A STONE PESTLE; probably an elongated sandstone pebble, from
form and mode of wearing; said to be from Massachusetts.

From Mr. ROTHOUT, *Albany, N. Y.*

A MEXICAN SPUR.

From G. E. STIMPSON, *Albany, N. Y.*

PISTOL of JOHN CHENEY, the famous "Hunter of the Adirondack
carried by him thirty-two years, and with which he had kil
twenty-seven moose, hundreds of the red deer, one panther (th
feet high and nine feet and nine inches long), about twenty bl
bears, ten or twelve grey wolves and a large number of fish
foxes, otters, minks, raccoons and smaller game.

From NEW YORK STATE AGRICULTURAL SOCIETY.

Two STONE AXES and eighteen ARROW HEADS, Indian.

V. TO THE LIBRARY (IN 1867 AND 1868).

From A. H. WORTHEN.

A. H. Worthen, and others. Geological Survey of Illinois. 2 v
I. Geology; II. Palæontology. 4to.

From — KERR.

E. Emmons. North Carolina Geological Survey. Raleigh, 1
and 1858. 2 vols. 8vo.

From the AUTHOR.

James Hall. Report of the Geological Survey of Wisconsin. M
son, 1861. Pam. 12mo.

From the AUTHORS.

Grote & Robinson. Descriptions of American Lepidoptera. Pl
delphia, 1867, 1868. Nos. 1, 2, 3. Pam. 8vo.

ote & Robinson. Notes on the North American Lepidoptera contained in the British Museum. Philadelphia, 1868. Pam. 8vo.

From the AUTHOR.

W. Schmidt. Catalog. des Antiquarischen Bücherlagers. Halle, 1867. Pam. 8vo.

From the AUTHOR.

Siebke. Entomologiske Undersogelser. Christiania, 1866. Pam. 8vo.

From the AUTHOR.

A. Sexe. Mærker Efter en Iistid. Christiania, 1866. Pam. 4to.

From the AUTHOR.

T. Kjerulf. Veiviser Ved Geologiske Excursioner. I. Christiania Omegn. Christiania, 1865. Pam. 4to.

zungs-Berichte der naturwissenschaftlichen Gesellschaft Isis in Dresden. 1867, complete, 1868, Nos. 1 to 6.

From the REGENTS.

gents of the University of the State of New York. Seventy-ninth Annual Report. Albany, 1866. Pam. 8vo.

gents of the University of the State of New York. Twentieth Annual Report on the condition of the State Cabinet of Natural History. Albany, 1867. 8vo.

Muhlenberg. Catalogue of Plants of North America. Philadelphia, 1818. 8vo.

ac Lea and others. Check Lists of Shells of North America. Washington, 1860. Pam. 8vo.

port of the Select Committee on the Completion of the Natural History of the State of New York. Albany, 1856. Pam. 8vo.

ncer F. Baird. Revision of the North American Batrachia. Philadelphia, 1849. 8vo.

From the SMITHSONIAN INSTITUTION.

ntz Mayer. Observations on Mexican History and Archæology. Washington, 1856. Pam. 4to.

P. Kimball. Flora from the Apalachian Coal-field. Göttingen, 1857. Pam. 8vo.

From the AUTHOR.

James Hall. Palæontology of New York. Vol. II. Descrip text. Albany, 1852. Pam. 4to.

From the SMITHSONIAN INSTITUTION.

Report of the Board of Regents of the Smithsonian Inst tion * * * * for the year 1867. Washington, 1868. 8vo.

II. BY PURCHASE.

I. TO THE ZOÖLOGICAL DEPARTMENT.

TOOTH OF FOSSIL ELEPHANT, found in the gravel, twenty-five feet be the surface of the placer gold mining district of Montana, Meagher county (formerly Gallatin county), near the head wat of Missouri river, twenty-five miles from Helena city. By A Wood and John Kiergan, in August, 1867.

A COLLECTION of one hundred and ninety-six ALCOHOLIC SPECIME exclusive of Insects and Mollusks, as follows:

MAMMALS.

2 Mammals (young).
3 *Vespertilio* ———? Mississippi river.

FISHES.

4 *Trachinus vipera.* River Mersey, England.
3 *Muræoides guttata.* River Mersey, England.
2 *Cottus bulbalus.* River Mersey, England.
11 *Pimelodus* ———? (with yolk-sac attached). Panama.
2 *Perca fluviatalis.*
2 *Leuciscus rutilis.*
12 *Gasterosteous occidentalis.*
1 *Echeneis remora.* New York Harbor.
4 *Aspidophorus Europans.* River Mersey, England.
1 *Hippocampus* ———? Panama.
24 specimens of several species not determined.

REPTILES.

1 *Ancistrodon contortrix.*
2 Ophidians. Martinique, W. I.
17 " Localities not stated.
3 Coluberidæ. Mississippi river.
3 " Indiana.
27 Salamandridæ and Scincidæ. Localities not stated.
12 " New York.
2 " Japan.
3 Saurians. Osage river, Missouri.
11 Ranidæ. Localities not stated.
2 " England.

INSECTS.

le Insects. Locality not stated.
" Mississippi river.
" Minnesota.
" Indiana, Ohio, Kentucky.
" Albany, N. Y.
" Martinique, W. I.
" Albany and vicinity.
" Minnesota (Orthoptera).
canthodis macroserus (Gigantic Locust). Panama.
ttacus Cecropia larva.
eratomia quadricornis larva.

CRUSTACEANS.

stacus Bartonii.
natifa ———*?* New York Harbor (very fine).
corpion. Osage river.
rustaceans of several species, not determined.

MOLLUSKS.

ottle Mollusks. England.
-" " New York Harbor.
Iiscellaneous specimens.

st of *Diprotodon Australis* Owen.

ast of *Mastodon giganteus* Cuv.; SKULL and LOWER JAW of a ung individual.

ast of *Mastodon giganteus* Cuv.; LOWER JAW of a young dividual.

il Skeleton of *Megaceras hibernicus* (IRISH ELK).

II. TO THE LIBRARY.

h Falconer: Palæontological Memoirs. London, 1868. 2 vols. o.

rican Naturalist. Salem, Mass. 8vo. Vol. I, 1867; of Vol. II, 68, Nos. 1 to 10.

rican Entomologist. St. Louis, Mo. 8vo. Vol. 1, 1868, Nos. 1 4.

rican Journal of Science and Arts. 8vo. New Haven. Vols. LIII and XLIV for 1867; Vol. XLV, 1868, Nos. 133 and 134; ol. XLVI, 1868, Nos. 137 and 138.

Henry Adams and Arthur Adams. The Genera of Recent Mol
arranged according to their organization. 3 vols. Royal
London, 1858.

III. BY COLLECTIONS MADE BY THE CURATOR

I. TO THE ZOÖLOGICAL DEPARTMENT.

SKULL of BLACK TAILED DEER (*Cervus macrotis* Say).

SKULL and portion of SKELETON of BUFFALO (*Bos Americanus*

SKELETON of ANTELOPE (*Antilocapra Americana*).

Two large SKULLS of ANTELOPE.

SKULL of BIG HORN or MOUNTAIN SHEEP (*Ovis montana*).

Living specimens of *Siredon lichenoides* Baird, an undeveloped
of *Amblystoma mavortium* Baird.

II. TO THE GEOLOGICAL AND PALÆONTOLOGICAL DEPARTMEN

Collection of ROCKS and FOSSILS of Metamorphic, Cretaceous
Tertiary Formations of the Rocky Mountain region.

(C.)

RTIAL LIST OF SHELLS FOUND NEAR TROY, NEW YORK.

By Truman H. Aldrich, of the Rensselaer Polytechnic Institute.

is list is the result of collections made during the summers of and 1867, within a radius of six miles around Troy, and is by eans complete.

ference is made, as far as practicable, to De Kay's Report on usca, in the New York State Natural History.

UNIO, Bruguiere.

ALATUS, *Say*. De Kay, p. 195. De Kay speaks of Dr. Newnb obtaining it from the Northern canal, near Waterford. In the ring of 1867, the canal was searched for it, both above and below aterford, for several miles, without success. Mr. H. Rousseau, this city, found a single valve in the canal at the weigh lock.

NASUTUS, *Say*. De Kay, p. 191. Moderately abundant in the ohawk basin. Specimens of medium size, and many deformed. ldom found in the canals or Hudson River.

COMPLANATUS, *Solander*. De Kay, p. 188. Very common. ne varieties, with deep radiating lines outside, and beautiful cre within are sometimes found.

CARIOSUS, *Say*. De Kay, p. 193. Moderately abundant. Fine ecimens found in the Mohawk basin, Erie canal and Hudson ver.

OCHRACEUS, *Say*. De Kay, p. 193. Mohawk basin and canals. ot abundant.

TAPPANIANUS, *Lea*. De Kay, p. 194. Many years ago Dr. Newnb found this shell quite plentiful, but of late years the locality d been lost. In the spring of 1867, Mr. Rousseau and myself und it again. The precise locality only occupies a few rods of e Northern canal, between Cohoes and Waterford, just beyond e first lock, above the canal bridge, across the Mohawk.

De Kay's description is taken from shells from this locality.

UNIO RADIATUS, *Lam.* DE KAY, p. 189. Very abundant.

UNIO PRESSUS, *Lea.* DE KAY, p. 191. Very rare. One specim found in the Northern canal. It is said to be plentiful in Ho River, farther north.

MARGARITANA, LEA.

MARGARITANA RUGOSA, *Lea.* DE KAY, p. 196. Moderately abund in the canals, rare in the Mohawk basin, and not yet found in Hudson River.

MARGARITANA UNDULATA, *Lea.* DE KAY, p. 198. Common in Northern canal near Waterford; not yet found in the Hud River.

MARGARITANA MARGINATA? *Say.* DE KAY, 196. Rare. North canal.

ANODONTA, BRUGUIÈRE.

ANODONTA IMPLICATA, *Say.* DE KAY, p. 202. Very large and p derous specimens found in the basin, rarer in the canals, and sel found in the Hudson River.

ANODONTA FLUVIATILIS, *Lea.* DE KAY, p. 203. Moderately abu ant in the canals and river.

ANODONTA LEWISII, *Lea.* Proc. Acad. Nat. Sci. Phila., 1857, p. Mohawk basin. Not common.

ANODONTA BENEDICTENSIS, *Lea.* DE KAY, p. 204. Common in Hudson River and Mohawk basin.

ANODONTA EDENTULA, *Say.* DE KAY, p. 201. Not common. No ern canal.

SPHÆRIUM, SCOPOLI.

SPHÆRIUM SULCATUM, *Lam.* DE KAY, p. 222. Described by De as *Cyclas similis.* Found of very large size in the Moh basin, on a sand bank, at low water; not common in the Hud River or canals.

SPHÆRIUM STRIATINUM, *Lam.* De KAY, p. 223. Mohawk River canals. Common. De Kay describes this shell under the nam *Cyclas dubia?* Say.

SPHÆRIUM SECURIS, *Prime.* Mohawk basin. Rare.

PISIDIUM, PFEIFFER.

IUM VIRGINICUM, *Bourg.* Abundant in the canals and Hudson.

IUM COMPRESSUM, *Prime.* Mohawk River and canals.

PALUDINA, LAMARCK.

DINA INTEGRA, *Say.* DE KAY, p. 84. Very common. Reversed cimens found in proportion of 1 to 250.

DINA DECISA, *Say.* DE KAY, p. 84. Not common. Mohawk in.

DINA RUFA, *Hald.* Mohawk basin. Rare.

VALVATA, MÜLLER.

ATA TRICARINATA, *Say.* DE KAY, p. 118. Very common in places in the vicinity.

LIMNÆA, LAMARCK.

ÆA ELODES, *Say.* Very common.

ÆA ELODES, var. CATASCOPIUM, *Say.* DE KAY, p. 67. Very mmon.

ÆA AMPLA, *Mighels.* Portland Society Natural History, Vol. I. the summer of 1866, one dead shell was found in Dry River, est Troy. Mr. H. Rousseau says he has found it in a spring ween Troy and Albany, near the H. R. R. R. track.

ÆA HUMILIS, *Say.* DE KAY, p. 71. Mohawk basin. Common.

ÆA REFLEXA, *Say.* DE KAY, p. 71. Mohawk River and canals. t common.

ÆA DESIDIOSA, *Say.* DE KAY, p. 73. Mohawk basin. Rare.

ÆA UMBILICATA, *Adams.* In the Mohawk River, and Hudson ver, at Albany. De Kay, p. 69, describes this shell under the me of *L. caperata*, a different shell.

PHYSA, DRAPARNAULD.

A HETEROSTROPHA, *Say.* DE KAY, p. 76. In brooks, and fine cimens in the Hudson River, near Albany.

A ANCILLARIA, *Say.* DE KAY, p. 79. Common in the Hudson ver and Mohawk basin.

PHYSA HYPNORUM, *Linn.* Pond near Bald Mountain. Rare.

PLANORBIS, LAMARCK.

PLANORBIS TRIVOLVIS, *Say.* DE KAY, p. 59. Very common.

PLANORBIS BICARINATUS, *Say.* DE KAY, p. 60. Common in Mohawk basin.

PLANORBIS CAMPANULATUS, *Say.* DE KAY, p. 61. Common in Mohawk basin and canals.

PLANORBIS EXACUTUS, *Say.* DE KAY, p. 63. In the Hudson R near Albany. Rare.

PLANORBIS ARMIGERUS, *Say.* DE KAY, p. 62. In swamp, Bald Mountain, and in the Mohawk basin, near Rensselaer Saratoga R. R. bridge. Rare.

PLANORBIS PARVUS, *Gould.* DE KAY, p. 63. Not common. Pr bly young of *P. elevatus.* Mohawk River, near Cohoes.

PLANORBIS DEFLECTUS, *Say.* DE KAY, p. 65. Common. Moh basin.

MELANIA, LAMARCK.

MELANIA VIRGINICA. *Gmel.* DE KAY, p. 90. Mohawk River basin. Not common.

MELANIA ELEVATA, *Say.* Jour. Acad. Nat. Sci. Phila., Vol. II 176. Very common in the canals.

MELANIA SUBULARIS? *Lea.* DE KAY, p. 92. Not common. Moh River and basin.

ANCYLUS, GEOFFROY.

ANCYLUS ———. Clinging to stones near Cohoes Falls.

SOMATOGYRUS.

SOMATOGYRUS INTEGER, *Say.* Not common. Mohawk basin, railroad bridge.

AMNICOLA, GOULD.

AMNICOLA LIMOSA, *Say.* Jour. Acad. Nat. Sci. Phila., Vol. I, p. In the Hudson River near Albany, according to Mr. Whit I have not succeeded in finding it in the vicinity of Troy.

NICOLA LUSTRICA, *Say*. DE KAY, p. 87. In the Hudson River ear Albany. Rare.

SUCCINIA, DRAPARNAULD.

CINIA OVALIS, *Say*. DE KAY, p. 53. Common in the Mohawk asin.

CINIA OBLIQUA, *Say*. DE KAY, p. 53. In the Hudson River, on w islands between Troy and Albany.

CINIA TOTTENIANA, *Lea*. Tryon's Monog. Terr. Moll., p. 18. Not ommon.

HELIX, LINNÆUS.

LIX ALBOLABRIS, *Say*. DE KAY, p. 26. Not common. Bald Mountain, near Troy.

LIX ALTERNATA, *Say*. DE KAY, p. 29. Found in decomposing hale, at the foot of Pine Ledges, near Troy. Common.

LIX ARBOREA, *Say*. De Kay, p. 30. Very common on the low lands in the Hudson River, between Troy and Albany.

LIX CONCAVA, *Say*. DE KAY, p. 33. Sometimes found at Lansingurgh.

LIX CHERSINA, *Say*. DE KAY, p. 45. Flats of the Mohawk River nd its outlets. Rare.

LIX EXOLETA, *Binney*. DE KAY, p. 27. Near Albany. Locality estroyed.

LIX FULIGINOSA, *Binney*. DE KAY, p. 37. Low lands between lbany and Troy. Rare.

LIX LINEATA, *Say*. DE KAY, p. 44. Near Albany. Rare.

LIX MONODON, *Racket*. DE KAY, p. 35. In shale, at the foot of ine Ledge, near Troy. Common.

IX MINUTA, *Say*. DE KAY, p. 40. Flats of Mohawk. Common.

IX MULTIDENTATA, *Binney*. Near Albany. Locality destroyed. Ir. Whitfield.)

IX PALLIATA, *Say*. DE KAY, p. 33. Near Troy. Rare.

HELIX STRIATELLA, *Anthony*. DE KAY, p. 43. Found on isl in the Hudson River, between Troy and Albany. Very comm Numbers were feeding on the common nettle.

HELIX TRIDENTATA, *Say*. DE KAY, p. 28. Common in n localities.

HELIX THYROIDUS, *Say*. DE KAY, p. 29. Rare. Near Mountain.

VITRINA, DRAPARNAULD.

VITRINA LIMPIDA, *Gould*. DE KAY, p. 25. Near Lansingburgh low lands. Rare.

ACHATINA, LAMARCK.

ACHATINA LUBRICA, *Müller*. DE KAY, p. 55. Flats of the Moh River, opposite Troy. Rare.

VERTIGO, MÜLLER.

VERTIGO OVATA, *Say*. In dead stumps, &c., near Troy. Comm

CARYCHIUM, MÜLLER.

CARYCHIUM EXIGUUM, *Say*. In dead stumps, &c., near Troy. F

PUPA, DRAPARNAULD.

PUPA ———. Low lands of the Mohawk River, near Troy. F

SYNOPSIS.

UNIONIDÆ.

- o alatus, *Say.*
- nasutus, *Say.*
- complanatus, *Lea.*
- cariosus, *Say.*
- ochraceus, *Say.*
- tappanianus, *Lea.*
- radiatus, *Lam.*
- pressus, *Lea.*

- MARGARITANA rugosa, *Lea.*
- " undulata, *Lea.*
- " marginata, *Say.*
- ANODONTA implicata, *Say.*
- " fluviatilis, *Lea.*
- " lewisii, *Lea.*
- " benedictensis, *Lea.*
- " edentula, *Say.*

CORBICULADÆ.

- ÆRIUM sulcatum, *Lam.*
- striatinum, *Lam.*
- securis, *Prime.*

- PISIDIUM virginicum, *Bourg.*
- " compressum, *Prime.*

VIVIPARIDÆ.

- UDINA integra, *Say.*
- decisa, *Say.*

- PALUDINA rufa, *Hald.*

VALVATIDÆ.

- VATA tricarinata, *Say.*

LIMNÆIDÆ.

- NÆA elodes, *Say.*
- ampla, *Mighels.*
- " var. catascopium.
- humilis, *Say.*
- reflexa, *Say.*
- desidiosa, *Say.*
- umbilicata, *Adams.*
- YSA heterostropha, *Say.*
- ancillaria, *Say.*

- PHYSA hypnorum, *Linn.*
- " bicarinatus, *Say.*
- PLANORBIS trivolvis, *Say.*
- " campanulatus, *Say.*
- " exacutus, *Say.*
- " armigerus, *Say.*
- " parvus, *Gould.*
- " deflectus, *Say.*
- ANCYLUS ———.

MELANIADÆ.

- LANIA virginica, *Gmel.*
- elevata, *Say.*

- MELANIA subularis? *Lea.*

AMNICOLIDÆ.

- IATOGYRUS integer, *Say.*
- NICOLA limosa, *Say.*

- AMNICOLA lustrica, *Say.*

HELICIDÆ.

- CINIA ovalis, *Say.*
- obliqua, *Say.*
- totteniana, *Lea.*
- LIX exoleta, *Binney.*
- fuliginosa, "
- lineata, *Say.*
- monodon, *Racket.*
- minuta, *Say.*
- multidentata, *Binn.*
- palliata, *Say.*

- HELIX albolabris, *Say.*
- " alternata, *Say.*
- " arborea, *Say.*
- " concava, *Say.*
- " chersina, *Say.*
- " striatella, *Anth.*
- " tridentata, *Say.*
- " thyroidus, *Say.*
- VITRINA limpida, *Gould.*

PUPADÆ.

ACHATINA lubrica, *Müll.*
VERTIGO ovata, *Say.*

PUPA ———.

AURICULIDÆ;

CARYCHIUM exiguum, *Say.*

FAMILIES.	Genera.	No. in each Genera.	No. in Fami
UNIONIDÆ,	Unio,	8	16
	Margaritana,	3	
	Anodonta,	5	
CORBICULADÆ,	Sphærium,	3	5
	Pisidium,	2	
VIVIPARIDÆ,	Paludina,	3	3
VALVATIDÆ,	Valvata,	1	1
LIMNÆIDÆ,	Limnæa,	7	18
	Physa,	3	
	Planorbis,	7	
	Ancylus,	1	
MELANIADÆ,	Melania,	3	3
AMNICOLIDÆ,	Amnicola,	2	3
	Somatogyrus,	1	
HELICIDÆ,	Succinia,	3	19
	Helix,	15	
	Vitrina,	1	
PUPADÆ,	Achatina,	1	3
	Vertigo,	1	
	Pupa,	1	
AURICULIDÆ,	Carychium,	1	1
10	21	72	72

There are, undoubtedly, a number of other species occurring in vicinity, but the above have actually been found, either by m or others, perfectly to be relied upon.

The local distribution of the fresh water shells is especially no able, some being found in the Mohawk basin and not in the Hu River, but a few rods away.

Again, one Unio is found only in the Champlain or Northern c while others are confined to the Erie canal alone.

(D.)

REPORT OF THE BOTANIST.

r. S. B. Woolworth,

Secretary of the Regents:

Sir—The following report for 1868 is respectfully submitted:

The specimens of plants known as the "Beck Collection" have en taken from the folios, poisoned, and arranged in the cabinet case epared for them. A few folios, containing the undistributed spec i ens of the collection, yet remain, there not being room for them in e case without too close pressing.

The unmounted duplicate specimens of the State Herbarium have en arranged, with their proper labels, in the empty folios.

The number of specimens* of the State collection that have been isoned and mounted is about one thousand five hundred, presenting four hundred and ten species, distributed as follows: ænogamia, or flowering plants, one hundred and seventy-eight; yptogamia, or flowerless plants, two hundred and thirty-two; of ich nine species are ferns, one hundred and eighty mosses, and ty-three are liverworts. The names of the species are given in the ompanying list, marked A.

In mounting the specimens of mosses, the species, so far as pos-le, have been represented by series of specimens illustrating the ferent forms, variations in size, aspect, etc. In most instances a gle plant has been separated from the tuft and placed by itself on e species sheet, that it may be seen individually as well as collect-ly. When the genus contains several or many species, the speci-ns of it have been prefaced by arranging a single plant of each ecies side by side on one sheet, thus giving, as it were, a synopsis the genus. Great care has been taken to select the best speci-ns that could be obtained, and to mount only clear, unmixed ones; ery important matter, surely, since these diminutive plants often

*The word *specimen*, when used in reference to the smaller Cryptogamia, denotes, not a single t, but a moderate sized tuft or aggregation of individual plants.

grow so intermingled that a small tuft frequently contains sev
different species.

The time between May 12th and November 1st was spent in
field in making observations and collections. Specimens have b
taken from the counties of Albany, Essex, Herkimer, Renssel
Greene, Richmond, Kings, Queens and Suffolk. The number
specimens collected is about four thousand, belonging to six l
dred and ninety-seven species, of which three hundred and nin
species are new to the Herbarium; three hundred and seve
eight new to the State flora, and three are new to science,
are now described for the first time. The distribution of th
species among the classes and orders is given below in tabular fo
A list of the names is given in a paper marked B. The desider
especially supplied in the Phœnogamia is marked opposite the na
in this list.

TABULAR STATEMENT OF PLANTS COLLECTED.

	No. of specimens. (Estimated.)	Species represented.	Species new to Herb'm.	Species new to State.	Species n to Scien
Fungi, ...	700	173	173	173	
Algæ, ...	400	69	51	69	
Lichenes, ...	900	105	105	105	
Hepaticæ, ...	200	33	13	4	
Musci, ...	800	98	23	13	1
Characeæ, ...	20	7	7	7	
Filices, ...	15	3			
Cryptogamia, ...	3,035	488	372	371	1
Phœnogamia, ...	1,000	209	18	7	2
Total, ...	4,035	697	390	378	3

Apart from the plants themselves, a small quantity of the se
of two hundred and forty-two species has been collected. Se
not only afford characters for comprehensive classification, but t
also frequently furnish good marks for specific distinction; he
their presence in the Herbarium is quite important. With ther
is possible, should a specimen, whose station is remote or exhaus
become lost, to replace it by raising a new plant. A list of
species of which seeds have been collected is marked C.

t is with pleasure that acknowledgment is made of the aid eived from the botanists of the State. Several of them have con- uted liberally and furnished specimens of some very rare and eresting plants. Though all are good, it seems but just to make cial mention of the large contribution of fungi made by Dr. we, and numbering two hundred and sixty-seven species. The ole number of species represented by contributed specimens is ee hundred and forty-six, of which two hundred and six were ther represented in the Herbarium nor among my collections of past season. A list of the botanists with their contributions is en in a paper marked D.

t is an interesting fact that the past season appears to have been prolific in white flowered varieties. Species which have n occasionally observed to produce white flowers appear to have nifested an unusual tendency in that way, while others have been nd for the first time, so far as we know, with such flowers. ria tomentosa, *L.*, Cirsium arvense, *Scop.*, Malva moschata, *L.*, la cucullata, *Ait.*, Trifolium pratense, *L.*, Statice limonium, *L.*, itiana saponaria v. linearis, *Gray*, have been observed by me h white flowers, while Cypripedium arietinum, *R. Br.*, Lobelia hilitica, *L.*, and Lobelia kalmii, *L.*, have been reported to me; last one, however, from Michigan. What natural causes or con- ons produce this variation in the color of the flower, and how far y these causes be under human control?

People are desirous of knowing the uses of plants. "What is the of these things" is almost the first question uttered by many in erence to the botanist's treasures. Mere boys have frequently pounded it to me, and indicated a willingness to look after "such ngs," could they be assured of any material benefit to be derived n them. All readily admit the value of our cultivated plants, few consider the wild ones, and especially those of the lower ers, to be of any account or importance. But the cultivated ones e been brought into the service of man from Nature's broad field, additions are occasionally made to their number. Doubtless nts are now to be found growing wild in our woods and waste ces, which, by cultivation, might be made as valuable as those in fields and gardens. Asclepias cornuti might rival the Asparagus nt, Apios tuberosa, the Potato, and several of the Leguminosæ ght come into equal value with Peas and Beans. But we may not k for useful plants among the higher orders alone. Mushrooms

have long been known to afford delicious and nutritious food. T
are largely used in some of the countries of Europe, and have beg
to be an article of commerce, and, preserved in cans, are brough
this country and offered for sale. In view of these facts, and of
increasing interest in the cultivation and use of these fungi in
country, it has been thought best to add brief remarks to the n
important species of the Cryptogamia concerning their uses, and
note particularly those that are edible. The number of species
edible fungi already found in our State is thirty-three, a list of wl
is given in a paper marked E.

Further remarks upon these and other plants both useful and in
rious, together with a record of those new to our State flora, desc
tions of new species, etc., are given in a paper marked F.

A.

LIST OF SPECIES OF WHICH SPECIMENS HAVE BEEN MOUNTED.

Clematis ochroleuca, *Ait.*
Ranunculus flammula v. reptans.
Trollius laxus, *Salisb.*
Dentaria diphylla, *L.* 2 spms.
" maxima, *Nutt.*
Sinapis nigra, *L.*
Viola selkirkii, *Pursh.*
Ascyrum crux-andreæ, *L.*
Hypericum canadense, *L.*
Arenaria grœnlandica, *Spreng.*
Stellaria longifolia, *Muhl.*
" borealis, *Bigel.*
Ceanothus ovalis, *Bigel.*
Acer spicatum, *Lam.*
" dasycarpum, *Ehrh.*
Lespedeza stuvei, *Nutt.*
Baptisia tinctoria, *R. Br.* 2 spms.
Geum album, *Gmelin.* 2 spms.
" virginianum, *L.*
Potentilla tridentata, *Ait.*
Parnassia caroliniana, *Michx.*
Circæa alpina, *L.*
Epilobium hirsutum, *L.*
Gaura biennis, *L.*
Ludwigia alternifolia, *L.*
Rhexia virginica, *L.*
Ammannia humilis, *Michx.*
Cuphea viscosissima, *Jacq.*
Thaspium trifoliatum, *Gray.*
Aralia trifolia, *Gray.*
" quinquefolia, *Gray.*
Cornus florida, *L.*
" sericea, *L.*
Lonicera ciliata, *Muhl.*
Viburnum acerifolium, *L.*
Houstonia cœrulea, *L.*
Eupatorium sessilifolium, *L.*
Aster ericoides, *L.*
" lævis, *L.* 2 spms.
" undulatus, *L.*
Solidago thyrsoidea, *E. Mey*
" arguta, *Ait.*
" bicolor v. concolor, *G*
" ulmifolia, *Muhl.*
" muhlenbergii, *T. & G.*
Xanthium spinosum, *L.*
Galinsoga parviflora, *Cav.* 2 s
Anthemis arvensis, *L.*
Artemisia biennis, *Willd.*
Cacalia suaveolens, *L.*
Senecio aureus, *L.*
Arnica mollis, *Hook.*

chus oleraceus, *L.* 2 spms.
asper, *Vill.*
arvensis, *L.*
vlussacia resinosa, *T. & G.*
ccinium macrocarpon, *Ait.*
oxycoccus, *L.*
uliginosum, *L.*
ola elliptica, *Nutt.*
mula mistassinica, *Michx.*
imachia lanceolata, *Walt.*
nolus valerandi, *L.*
icularia intermedia, *Hayne.*
gibba, *L.*
alpa bignonioides, *Walt.*
onica officinalis, *L.*
ardia pedicularia, *L.*
licularis lanceolata, *Michx.*
opus europæus, *L.*
ganum vulgare, *L.*
nospermum hirtum, *Lehm.*
ox subulata, *L.*
ntiana saponaria v. linearis, *G.*
nopodium glaucum, *L.*
iplex rosea, *L.*
ygonum acre, *H. B. K.*
dera benzoin, *Meisner.*
ca palustris, *L.*
pherdia canadensis, *Nutt.*
litriche verna, *L.*
lypha virginica v. gracilens.
ica urens, *L.*
dioica, *L.*
ya porcina, *Nutt.*
alba, *Nutt.*
es canadensis, *Michx.*
rcus ilicifolia, *Wang.*
obtusiloba, *Michx.*
x cordata, *Muhl.* 2 spms.
longifolia, *Muhl.* 3 spms.
andra virginica, *Raf.*
plocarpus fœtidus, *Salisb.*
na torreyi, *Aust.*
rganium simplex, *Huds.*
as major, *All.*
flexilis, *Rostk.* 2 spms.
indica v. gracillima.
pia maritima, *L.* 2 spms.
nichellia palustris, *L.*
amogeton pectinatus, *L.*
prælongus, *Wolf.*
Potamogeton perfoliatus, *L.*
" pauciflorus, *Pursh.*
" hybridus, *Michx.*
" lucens, *L.*
Triglochin maritimum v. elatum.
Habenaria dilatata, *Gray.*
" obtusata, *Richardson.*
" orbiculata, *Torr.*
" hookeri, *Torr.*
" fimbriata, *R. Br.*
Goodyera pubescens, *R. Br.*
Listera cordata, *R. Br.*
Arethusa bulbosa, *L.*
Pogonia verticillata, *Nutt.*
Corallorhiza multiflora, *Nutt.*
" innata, *R. Br.*
Cypripedium spectabile, *Swartz.*
Trillium sessile, *L.*
" grandiflorum, *Salisb.*
Smilacina racemosa, *Desf.*
Erythronium americanum, *Sm.*
Ornithogalum umbellatum, *L.*
Luzula parviflora v. melanocarpa
Juncus trifidus, *L.*
" nodosus, *L.* 2 spms.
" articulatus, *L.*
" scirpoides v. macrostemon.
Eleocharis intermedia, *Schultes.*
" rostellata, *Torr.*
" compressa, *Sulliv.*
Scripus cæspitosus, *L.*
" planifolius, *L.*
" sylvaticus, *L.*
Eriophorum vaginatum, *L.*
Rhynchospora alba, *Vahl.*
" fusca, *R. & S.*
Carex scirpoidea, *Michx.*
" teretiuscula v. major, *K.*
" alopecoidea, *Tuck.*
" cephalophora, *Muhl.*
" canescens v. vitilis, *Gray.*
" sychnocephala, *Carey.*
" bigelovii, *Torr.*
" torta, *Boott.*
" aperta, *Boott.*
" stricta v. strictior, *Gray.*
" lenticularis, *Michx.* 2 spms
" limosa, *L.*
" irrigua, *Smith.*
" platyphylla, *Carey.* 2 spms

Carex retrocurva, *Dew.* 2 spms.
" laxiflora v. blanda. *Gray.*
" novæ-angliæ, *Schw.*
" varia, *Muhl.* 3 spms.
" richardsonii, *R. Br.*
" houghtonii, *Torr.*
" lupulina v. gigantoidea, *G.*
" rostrata, *Michx.* 2 spms.
" hartii, *Dew.*
" utriculata, *Boott.* 2 spms.
" monile, *Tuck.*
" oligosperma, *Michx.*
Triticum caninum, *L.*
Alopecurus geniculatus, *L.*
" aristulatus, *Michx.*
Aristida tuberculosa, *Nutt.*
Bouteloua curtipendula v. aristosa, *Gray.*
Leptochloa fascicularis, *Gray.*
Tricuspis purpurea, *Gray.*
Bromus secalinus, *L.*
" kalmii, *Gray.*
" ciliatus, *L.*
Aira flexuosa, *L.*
Panicum xanthophysum, *Gray.*
Andropogon furcatus, *Muhl.*

FILICES.

Woodsia glabella, *R. Br.*
" ilvensis, *R. Br.*
" obtusa, *Torr.*
Aspidium spinulosum v. boottii.
Asplenium ebeneum, *Ait.*
Cheilanthes vestita, *Swartz.*
Ophioglossum vulgatum, *L.*
Botrychium lunarioides, *Swartz.*
" simplex, *Hitchcock.*

MUSCI.

Funaria flavicans, *Michx.*
" hygrometrica, *Hedw.*
Aphanorhegma serrata, *Sulliv.*
Physcomitrium pyriforme, *L.*
Schistostega osmundacea, *W. M.*
Tetraplodon mnioides, *L. fil.*
Splachnum ampullaceum, *L.*
Hedwigia ciliata, *Dicks.*
Racomitrium microcarpum, *B'd*
" sudeticum, *Funk.*
" fasciculare, *Brid.*
Racomitrium aciculare, *Brid*
Grimmia ovata, *Web. & Moh*
" olneyi, *Sulliv.*
" leucophœa, *Grev.*
" pennsylvanica, *Sch'gr.*
Schistidium confertum, *Funk*
" apocarpum, *Hedw.*
" agassizii, *S. & L.*
Timmia megapolitana, *Hedw*
Aulacomnion turgidum, *Sch'*
" palustre, "
" heterostichum, *Bry. Eu*
Mnium cinclidioides, *Hub.*
" punctatum, *Hedw.*
" hornum, *Hedw.*
" serratum, *Brid.*
" lycopodioides, *Hook.*
" cuspidatum, *Hedw.*
" rostratum, *Schwægr.*
" drummondi, *Br. & Sch.*
" affine, *Bland.*
" spinulosum, *Bry. Eur.*
Bryum pallescens, *Schwægr.*
" pallens, *Swartz.*
" uliginosum, *Brid.*
" elongatum, *Dicks*
" nutans, *Schreb.*
" crudum, *Schreb.*
" annotinum, *Hedw.*
" wahlenbergii, *Schwægr*
" pyriforme, *Hedw.*
" intermedium, *Brid.*
" bimum, *Schreb.*
" pseudo-triquetrum, *Sc'g*
" roseum, *Schreb.*
" cyclophyllum, *Bry. Eu*
" capillare, *Hedw.*
" cæspiticium, *L.*
" atropurpureum, *W. &.*
" argenteum, *L.*
Bartramia œderi, *Swartz.*
" pomiformis, *Hedw.*
" fontana, *Brid.*
" muhlenbergii, *Sch'gr.*
Conostomum boreale, *Swartz*
Meesia uliginosa, *Hedw.*
" tristicha, *Funk.*
" longiseta, *Hedw.*
Atrichum undulatum, *Beauv*
" angustatum, *Beauv.*

ɔnatum brevicaule, *Brid.*
urnigerum, *Brid.*
alpinum, *Brid.*
trichum piliferum, *Schreb.*
juniperinum, *Hw.*
formosum, *Hedw.*
commune, *L.*
ıyscium foliosum, *W. & M.*
ɔaumia aphylla, *Haller.*
ɪinalis antipyretica v. gigan-
a, *Sulliv.*, 2 spms.
ɪinalis novæ-angliæ, *Sulliv.*
dalecarlica, *Bry. Eur.*
ıelyma capillaceum, *Dill.*
falcatum, *Hedw.*
igynandrum filiforme, *T'm.*
ɔodon brachypus, *Brid.*
odon trichomitrion, *Mohr.*
modon viticulosus, *L.*
apiculatus, *Bry. Eur.*
obtusifolius, "
attenuatus, *Schreb.*
? tristis, *Cesati.*
ɪea polycarpa, *Ehrh.*
obscura, *Hedw.*
nervosa, *Schwægr.*
rostrata, *Hedw.*
denticulata, *Sulliv.*
ɪia hirtella, *Hedw.*
asprella, *Schp.*
ɪrella careyana, *Sulliv.*
julacea, *Bry. Eur.*
camptodon splachnoides, *B.*
ɪisæa subdenticulata, *Schp.*
intricata, *Hedw.*
velutina, *Schp.*
ıalothecium subcapillatum.
ygyrium repens, *Brid.*
ndrothecium cladorrhizans.
seductrix, *Hedw.*
brevisetum, *Sp.*
kera pennata, *Hedw.*
ıalia gracilis, *James.*
ıacium americanum, *Brid.*
dendroides, *L.*
ɪnum tamariscinum, *Hedw.*
delicatulum, *Mull.*
minutulum, *Hedw.*
pygmæum, *Bry. Eur.*
scitum, *Beauv.*

Hypnum abietinum, *L.*
" blandowii, *W. & M.*
" paludosum, *Sulliv.*
" squarrosum, *L.*
" triquetrum, *L.*
" brevirostre, *Ehrh.*
" splendens, *Hedw.*
" umbratum, *Ehrh.*
" alleghaniense, *Mull.*
" hians, *Hedw.*
" piliferum, *Schreb.*
" sullivantii, *Spruce.*
" strigosum, *Hoffm.*
" diversifolium, *Bry. E.*
" boscii, *Schwægr.*
" serrulatum, *Hedw.*
" demissum, *Wils.*
" cylindricarpum, *Mull.*
" recurvans, *Schwægr.*
" molle, *Dicks.*
" eugyrium, *Bry. Eur.*
" ochraceum, *Turn.*
" montanum, *Wils.*
" cuspidatum, *L.*
" schreberi, *Willd.*
" cordifolium, *Hedw.*
" giganteum, *Schp.*
" stramineum, *Dicks.*
" sarmentosum, *Wahl.*
" uncinatum, *Hedw.*
" revolvens, *Swartz.*
" fluitans, *Hedw.* 2 spms.
" aduncum, *Hedw.* 2 spm
" sendtneri, *Schp.*
" filicinum, *L.* 3 spms.
" crista-castrensis, *L.*
" imponens, *Hedw.*
" reptile, *Michx.*
" fertile, *Sendt.*
" hamulosum, *Bry. Eur.*
" curvifolium, *Hedw.*
" haldanianum, *Grev.*
" pratense, *Koch.*
" rugosum, *Ehrh.*
" nitens, *Schreb.*
" salebrosum, *Hoffm.*
" lætum, *Brid.* 2 spms.
" acuminatum, *Beauv.*
" rutabulum, *L.*
" plumosum, *L.*

Hypnum velutinum, *L.*
" rivulare, *Brch.*
" novæ-angliæ, *S. & L.*
" stellatum, *Schreb.*
" polymorphum, *Brch.*
" hispidulum, *Brid.*
" dimorphum, *Brid.*
" minutissimum, *S. & L.*
" subtile, *Hoffm.*
" adnatum, *Hedw.*
" radicale, *Brid.*
" orthocladon, *Beauv.*
" noterophilum, *S. & L.*
" riparium, *L.*
" polygamum, *Bry. Eur.*
" lescurii, *Sulliv.*
" denticulatum, *L.*
" muhlenbeckii, *Hartm.*
" sylvaticum, *L.*
" pulchellum, *Dicks.*

HEPATICÆ.

Riccia fluitans, *L.*
" natans, *L.*
Anthoceros lævis, *L.*
Duvalia rupestris, *Nees.*
Reboulia hemisphærica, *Raddi.*
Fegatella conica, *Corda.*
Preissia commutata, *Nees.*
Blasia pusilla, *L.*
Pellia epiphylla, *Nees.*
Steetzia lyellii, *Lehm.*
Chiloscyphus polyanthus, *Corda.*
Geocalyx graveolens, *Nees.*
Sphagnœcetis communis, *N.*
Jungermannia trichophylla,
" connivens, *Dicks.*
" curvifolia, *Dicks.*
" catenulata, *Hub.*
" peckii, *Aust.*
" barbata, *Schreb.*
" taylori, *Hook.*
" schraderi, *Mart.*
" inflata, *Huds.*
" spacellata, *Gies.*
" obtusifolia, *Hook.*
" incisa, *Schrad.*
" exsecta, *Smith.*
Scapania nemorosa, *Nees.*
Sarcoscyphus ehrharti, *Corda*
Frullania grayana, *Mont.*
" æolotis, *Nees.*
" virginica, *Gottsche.*
" eboracensis, *Gottsch*
Lejunia serpyllifolia, *Libert.*
Radula complanata, *Dumort*
" obconica, *Sulliv.*
Madotheca platyphylla, *Dum*
" porella, *Nees.*
Ptilidium ciliare, *Nees.*
Trichocolea tomentella, *Nees*
Sendtnera juniperina, *Nees.*
Mastigobryum trilobatum, *N*
" deflexum, *Nees.*
Calypogeia trichomanis, *Cor*

B.

PLANTS COLLECTED.

(Flowering Plants—Phœnogamia.)

mone pennsylvanica, *L.* Fr.
atica triloba, *Chaix.*
acutiloba, *DC.*
is trifolia, *Salisb.*
unculus recurvatus, *Poir.*
fascicularis, *Muhl.*
lius laxus, *Salisb.* Fr.
ictrum purpurascens, *L.* Fls.
cornuti, *L.* Fr.
anemonoides, *Mx.*
guinaria canadensis, *L.*
nphæa minor,* *DC.*
acenia purpurea, *L.*
taria laciniata, *Muhl.* Root.
barea vulgaris, *R. Br.*
bis hirsuta,* *Scop.*
canadensis, *L.*
dium campestre, *L.*
urtium armoracia, *Fr.*
a canadensis, *L.*
pubescens, *Ait.* Fr.
" v. eriocarpa,* *Nutt.*
" v. scabriuscula,* *T. & G.*
cucullata, *Ait.* Whitish fls.
" v. cordata,* *Gr.*
pedata, *L.*
ericum canadense v. major.*
ine clintoniana,* *Peck.*
ne noctiflora, *L.*
stellata, *Ait.* Fr.
æa officinalis, *L.* Fr.
va moschata,* *L.*
s copallina, *L.*
s cordifolia, *Michx.* Fr.
mnus alnifolius, *L'Her.* Fr.
spicatum, *Lam.* Fr.
nus perennis, *L.* Fr.
olium pratense, *L.* Wh. fls.
inia pseudacacia, *L.*
edeza stuvei, *Nutt.* Fr.
yrus palustris, *L.* Nar. lvs.
s tuberosa, *Mœnch.* Tubers.
Cassia chamæcrista, *L.*
" nictitans, *L.*
Prunus maritima, *Wang.*
" pumila, *L.*
Spiræa tomentosa, *L.* Wh. fls.
Fragaria vesca, *L.*
Rubus strigosus, *Michx.* Fr.
" neglectus,* *Peck.*
" occidentalis, *L.* Fr.
" hispidus, *L.* Fr.
Rosa carolina, *L.*
Cratægus crus-galli, *L.*
Epilobium hirsutum, *L.*
" palustre v. linearis.
Œnothera pumila, *L.*
Mitella nuda, *L.* Fr.
Ribes lacustre, *Poir.* Fr.
" floridum, *L.*
Sanicula canadensis, *L.*
" marilandica, *L.*
Zizia integerrima, *DC.*
Cryptotænia canadensis, *DC.*
Apium graveolens,* *L.*
Lonicera oblongifolia, *Muhl.* Fr.
Cornus canadensis, *L.* Fr.
Viburnum opulus, *L.*
" pubescens, *Pursh.*
" nudum, *L.* Nar. lvs.
Galium boreale, *L.*
" triflorum, *Michx.*
" trifidum v. pusillum,* *Gr.*
Eupatorium teucrifolium, *Willd.*
Aster flexuosus, *Nutt.* Dwarf.
" linifolius, *L.*
Erigeron annuum, *Pers.*
" philadelphicum, *L.*
Solidago cæsia, *L.*
" muhlenbergii, *T. & G.*
" thyrsoidea, *E. Meyer.*
" virga-aurea, *L.*
Baccharis halimifolia, *L.*
Bidens cernua, *L.* Dwarf.

* Not before represented in the State Herbarium.

Nabalus fraseri, *DC.*
" altissimus, *Hook.*
Hieracium scabrum, *Michx.*
" gronovii, *L.*
Helianthus annuus, *L.* Dwarf.
Lactuca canadensis, *L.*
Lobelia kalmii, *L.* Simple form.
" dortmanna, *L.* Dwarf.
Campanula aparinoides, *Pursh.*
Vaccinium stamineum, *L.* Fr.
" cæspitosum,* *Michx.*
" canadense, *Kalm.* Fr.
" uliginosum, *L.* Fr.
Vaccinium pennsylvanicum v. angustifolium.* *Gray.*
Kalmia angustifolia, *L.*
" latifolia, *L.* Fr.
Gaultheria procumbens, *L.*
Chiogenes hispidula, *T. & G.* Fr.
Ledum latifolium, *Ait.*
Pyrola secunda v. pumila.*
Monotropa hypopitys, *L.*
Lysimachia thyrsiflora, *L.* Fr.
Veronica scutellata, *L.*
Utricularia intermedia, *Hayne.*
Scrophularia nodosa, *L.*
Pedicularis canadensis, *L.*
Physostegia virginiana, *Benth.*
Collinsonia canadensis, *L.* Root.
Epiphegus virginiana, *Bart.*
Lysimachia stricta, *Ait.*
Monarda didyma, *L.*
Lithospermum officinale, *L.*
Gentiana saponaria v. linearis.
Menyanthes trifoliata, *L.* Fr.
Asclepias obtusifolia, *L.* Fr.
Hydrophyllum virginicum, *L.*
Atriplex arenaria, *Nutt.* Fr.
Chenopodium hybridum, *L.*
" ambrosioides, *L.*
" anthelminticum, *L.*
Suæda maritima, *Dumort.*
Salicornia herbacea, *L.*
" virginica, *L.*
" ambigua, *Michx.*
Rumex obtusifolius, *L.*
" orbiculatus,* *Gray.*
Callitriche verna, *L.*
Limnanthemum lacunosum,
Juglans cinerea, *L.* Stam.
Betula lenta, *L.*
" papyracea, *Ait.*
" alba v. populifolia, *Spr*
Quercus ilicifolia, *Wang.*
Myrica cerifera, *L.*
Populus balsamifera,* *L.*
Salix candida, *Willd.*
" humilis, *Marshall.*
" tristis, *Ait.*
" babylonica, *Tourn.*
" longifolia, *Muhl.*
Arisæma triphyllum, *Torr.*
Acorus calamus, *L.* F
Sparganium simplex, *Huds.*
" " v. nuttallii, *Gr.*
" " v. fluitans, *Gr.*
Naias flexilis, *Rostk.*
Potamogeton hybridus, *Mi*
" perfoliatus, *L.*
" amplifolius.* *Tuck.*
" claytonii, *Tuck.*
" oakesianus,* *Rob's.*
" lucens, *L.*
Vallisneria spiralis,* *L.*
Sagittaria graminea, *Michx.*
" heterophylla,* *Pursh.*
" variabilis, *Engelm.*
Habenaria hookeri, *Torr.*
" dilatata, *Gray.*
" blephariglottis, *Hook.*
Goodyera, menziesii,* *Lind*
Spiranthes cernua, *Richard*
" latifolia, *Torr.*
" romanzoviana,* *Cham*
Xyris flexuosa v. pusilla,* *C*
Sisyrinchium bermudiana,
Clintonia borealis, *Raf.*
Trillium cernuum, *L.*
" erythrocarpum, *Micha*
Smilacina stellata, *Desf.*
Polygonatum biflorum, *Ell.*
Erythronium americanum,
Streptopus amplexifolius, *L*
Smilax glauca, *Walt.*
Eriocaulon septangulare, *W*
Juncus pelocarpus, *E. Mey*

* Not before represented in the State Herbarium.

ıcus nodosus, *L.*
canadensis v. coarctatus.
" v. longicaudatus, *Engm.*
articulatus, *L.*
alpinus v. insignis,* *Fr.*
maritimus,* *Lam.*
dium mariscoides, *Torr.* Root.
ynchospora capillacea, *Torr.*
rex siccata, *Dew.* [ta.*
gynocrates v. substamina-
stellulata v. scirpoides, *Gr.*
laxiflora v. blanda, *Gray.*
varia, *Muhl.*
pennsylvanica, *Lam.*
arctata, *Boott.*
tuckermani,* *Boott.*
straminea v. tenera,* *Gr.*

Carex scoparia, *Schk.*
" emmonsii,* *Dew.*
" rosea v. radiata,* *Dew.*
" pauciflora, *Lightf.*
" vulpinoidea, *Michx.*
" lagopodioides, *Schk.*
" tentaculata v. gracilis, *Bt.*
" scirpoidea, *Michx.*
Brizopyrum spicatum, *H.* Root.
Eragrostis reptans, *Nees.*
" pectinacea, *Gray.*
" poæoides, *Beauv.*
Panicum clandestinum, *L.*
" depauperatum, *Muhl.*
" latifolium, *L.*
Calamagrostis canadensis, *Beauv*
Triticum repens, *L.* Root.

(Flowerless Plants — Cryptogamia.)

FERNS—*Filices.*

oodwardia angustifolia. *Sm.*
egopteris hexagonoptera, *Fee.*
læa gracilis, *H.*

MOSSES—*Musci.*

ıagnum rigidum, *Schp.*
sedoides, *Brid.*
wulfianum,* *Angst.*
girgensohnii,* *Russ.*
laricinum,* *Lindbg.*
lindenbergii, *Schp.*
subsecundum v. contort-
um,* *Nees.*
recurvum,* *Beauv.*
squarrosum, *Pers.*
cymbifolium v. congestum,
*Bry. Eur.**
acutifolium, *Ehrh.*
dræa crassinervia,* *Brch.*
rupestris, *Turn.*
isia viridula, *Brid.*
abdoweisia fugax, *Bry. Eur.*
denticulata. "
mnostomum rupestre, *Schgr.*
curvirostrum.
omum sullivantii,* *Bry. Eur.*
odus donianus,* "

Tetraphis pellucida, *Hedw.*
Dicranum montanum, *Hedw.*
" rufescens, *Turn.*
" heteromallum, *Hedw.*
" flagellare, *Hedw.*
" elongatum, *Schwægr.*
" longifolium, *Hedw.*
" spurium,* *Hedw.*
Paludella squarrosa,* *L.*
Fissidens osmundioides, *Hedw.*
Barbula fragilis,* *Wils.*
" mucronifolia, *Schgr.*
Didymodon rubellus, *Roth.*
Blindia acuta, *Dicks.*
Encalypta ciliata,* *Hedw.*
Amphoridium lapponicum, *Sch.*
" mougeotii,* *Schp.*
" peckii,* *Sulliv.*
Racomitrium sudeticum, *Funk.*
Drummondia clavellata, *Hook.*
Orthotrichum obtusifolium, *Scd.*
" anomalum, *Hedw.*
" strangulatum, *Beauv.*
" canadense, *Schp.*
" ludwigii, *Brid.*
" hutchinsiæ, *H–T.*
Coscinodon pulvinatus,* *Br. Eu.*
Pogonatum urnigerum, *Brid.*

* Not before represented in the State Herbarium.

Polytrichum commune, *L.*
" formosum, *Hedw.*
Mnium affine, *Bland.*
" stellare,* *Hedw.*
" medium,* *Schp.*
" cuspidatum, *Hedw.*
" drummondi, *Br. & Sch.*
Timmia megapolitana, *Hedw.*
Amblyodon dealbatus,* *Beauv.*
Bryum pallens, *Swartz.*
" bimum, *Schreb.*
" pyriforme, *Hedw.*
" pseudo-triquetrum, *Schgr.*
" nutans, *Schreb.*
Aulacomnion palustre, *Schwœgr.*
Buxbaumia aphylla, *Haller.*
Fontinalis novæ-angliæ, *Sulliv.*
Leucodon brachypus, *Brid.*
Myurella careyana, *Sulliv.*
Pylaisæa velutina, *Schp.*
Aphanorhegma serrata, *Sulliv.*
Hypnum demissum, *Wils.*
" fluitans, *Hedw.*
" sendtneri, *Schp.*
" revolvens, *Swartz.*
" turfaceum,* *Lindbg.*
" pratense, *Koch.*
" radicale, *Brid.*
" orthocladon, *Beauv.*
" delicatulum, *Mull.*
" giganteum, *Schp.*
" sullivantii, *Spruce.*
" plumosum, *L.*
" populeum v. rufescens.*
" stramineum, *Dicks.*
" stellatum, *Schreb.*
" gracile,* *Bry. Eur.*
" nitens, *Schreb.*
" schreberi v. montanum.*
" cuspidatum, *L.*
" scorpioides,* *L.*
" strigosum, *Hoffm.*
" polymorphum, *Brch.*
" brevirostre, *Ehrh.*
" splendens, *Hedw.*
" scitum, *Beauv.*
" blandowii, *W. & M.*
" serpens, *L.*
Homalia jamesii,* *Schp.*
Plagiothecium piliferum v. b
vipilum,* *Bry. Eur.*

LIVERWORTS—*Hepaticæ.*
Riccia sullivantii,* *Aust.*
Anthoceros lævis, *L.*
Marchantia polymorpha,* *L.*
Preissia commutata, *Nees.*
Duvalia rupestris, *Sulliv.*
Pellia epiphylla, *Nees.*
Grimaldia barbifrons,* *Rad*
Reboulia hemisphærica, *Rad*
Aneura palmata,* *Nees.*
Metzgeria pubescens,* *Raddi*
" furcata,* *Nees.*
Geocalyx graveolens, *Nees.*
Plagiochila spinulosa,* *N. &*
" asplenioides,* "
Sphagnœcetis communis, *Nee*
Jungermannia obtusifolia, *H*
" trichophylla, *L.*
" setiformis,* *Ehrh.*
" curvifolia, *Dicks.*
" connivens, *Dicks.*
" catenulata, *Hub.*
" inflata, *Huds.*
" bicuspidata, *L.*
" divaricata,* *Sm.*
Frullania grayana, *Mont.*
" eboracensis, *Lehm.*
" hutchinsiæ,* *Nees.*
Lejunia serpyllifolia, *Libert.*
Radula complanata, *Dumont.*
" pallens,* *Nees.*
Ptilidium ciliare, *Nees.*
Trichocolea tomentella, *Nees*
Lepidozia reptans, *Nees.*

(LICHENS—*Lichenes.*)
Usnea barbata, *Fr.*
" " v. florida, *Fr.*
" " v. hirta, *Hoffm.*
" " v. dasypoga, *Fr.*
" longissima, *Ach.*
Alectoria jubata v. chalybeif
mis, *Ach.*
" " v. implexa, *Fr.*

* Not before represented in the State Herbarium.

ernia prunastri, *Ach.*
furfuracea, *Mann.*
" v. cladonia, *Tk.*
nalina calicaris v. fastigiata.
" v. farinacea.
" v. inflata.
raria aculeata, *Fr.*
islandica, *Ach.*
cucullata, *Ach.*
ciliaris, *Ach.*
lacunosa, *Ach.*
oakesiana, *Tuck.*
orina saccata, *Ach.*
phroma arcticum, *Fr.*
tomentosum, *Kœrb.*
tom. v. helveticum.
lævigatum, *Ach.*
læv. v. papyraceum.
tigera aphthosa, *Hoffm.*
canina, *Hoffm.*
polydactyla, *Hoffm.*
horizontalis, *Hoffm.*
ta pulmonaria, *Ach.*
glomerulifera, *Delise.*
quercizans, *Ach.*
sylvatica, *Ach.*
melia perlata, *Ach.*
" v. olivetorum, *Ach.*
crinita, *Ach.*
tiliacea, *Fr.*
saxatilis, *Ach.*
conspersa, *Ach.*
olivacea, *Ach.*
stygia, *Ach.*
physodes v. entermorpha, *Tuck.*
yscia stellaris, *Wallr.*
" v. tribracia, *Fr.*
cæsia v. angustior, *Fr.*
obscura, *Nyl.*
" v. erythrocordia, *Tk.*
aquila v. detonsa, *Tk.*
pulverulenta, *Fr.*
speciosa, *Ach.*
yscia speciosa v. leucomela.
xine cocoes v. sorediata, *Tk.*
eloschistes parietinus, *Norm.*
par. v. polycarpus, *Fr.*
chrysophthalmus.
codium rupestre, *Tuck.*

Placodium aurantiacum, *Lightf.*
" aur. v. flavovirescens, *Fr.*
Gyalecta lutea, *Tuck.*
Lecanora pallida, *Schær.*
" pallescens, *Schær.*
" tartarea, *Ach.*
" " v. frigida, *Ach.*
" subfusca, *Ach.*
" varia, *Ach.*
" cinerea, *Fr.*
" atra, *Ach.*
" muralis, *Schær.*
" elatina v. ochrophæa.
Lecidea contigua, *Fr.*
" " albocœrulescens.
" enteroleuca, *Fr.*
" sanguinaria, *Ach.*
Buellia parasema, *Kœrb.*
" myriocarpa, *Tuck.*
" petræa, *Tuck.*
" lactea, *Kœrb.*
Biatora atropurpurea, *Ach.*
" sanguineoatra, *Fr.*
" rufonigra, *Tuck.*
" viridescens, *Fr.*
" vernalis, *Fr.*
" chlorantha, *Tuck.*
Bæomyces æruginosus, *DC.*
Cladonia cæspiticia, *Flœrk.*
" pyxidata, *Fr.*
" " v. symphicarpa, *Fr.*
" gracilis, *Fr.*
" " v. hybrida, *Fr.*
" " v. elongata, *Fr.*
Cladonia gracilis v. taurica.
" degenerans, v. cariosa.
" fimbriata, *Fr.*
" " v. adspersa.
" squamosa, *Hoffm.*
" " v. delicata.
" furcata, *Flœrk.*
" " v. racemosa, *Flk.*
" " v. subulata, *Flk.*
" rangiferina, *Hoffm.*
" " v. alpestris.
" amaurocrea, *Flœrk.*
" uncialis, v. turgescens.
" mitrula, *Tuck.*
" cornucopioides, *Fr.*
" cristatella, *Tuck.*

Pilophorum fibula, *Tuck.*
Stereocaulon tomentosum, *Fr.*
" paschale, *Ach.*
Urceolaria scruposa, *Ach.*
Pannaria microphylla, *Mass.*
" lanuginosa, *Ach.*
Pertusaria pertusa, *Ach.*
" " v. areolata.
" velata, *Nyl.*
" " v. multipuncta.
" wulfenii, *Dec.*
" globularis, *Ach.*
Conotrema urceolatum, *Tuck.*
Pyrenula nitida, *Ach.*
Trypethelium virens, *Tuck.*
Graphis scripta, *Ach.*
Umbilicaria muhlenbergii, *Tk.*
" pustulata, v. papulosa.
" proboscidea, *DC.*
" hirsuta, *Ach.*
" dillenii, *Tuck.*
Collema flaccidum, *Ach.*
" ryssoleum, *Tuck.*
Leptogium tremelloides, *Fr.*
" lacerum, *Fr.*
" chloromelum, *Nyl.*
" saturninum, *Nyl.*

SEA-WEEDS—*Algæ.*

Chondria dasyphylla, *Ag.*
" baileyana, *Mont.*
" tenuissima, *Ag.*
Gelidium corneum, *Lamour.*
Polysiphonia subtilissima, *Mont.*
" olneyi, *Harv.*
" harveyi, *Bail.*
" variegata, *Ag.*
" nigrescens, *Grev.*
Bostrychia rivularis, *Harv.*
Dasya elegans, *Ag.*
Champia parvula, *Harv.*
Corallina officinalis, *L.*
Grinnellia americana, *Harv.*
Delesseria sinuosa, *Lamour.*
Gracilaria multipartita, *J. Ag.*
Solieria chordalis, *J. Ag.*
Polyides rotundus, *Grev.*
Rhodymenia palmata, *Grev.*
Phyllophora brodiæi, *J. Ag.*
Ahnfeltia plicata, *Fr.*
Chondrus crispus, *Lyngb.*
Chylocladia baileyana, *Harv.*
Spyridia filamentosa, *Harv.*
Ceramium rubrum, *Ag.*
" rub. v. decurrens.
" diaphanum, *Roth.*
" fastigiatum, *Harv.*
" arachnoideum, *Ag.*
Callithamnion baileyi, *Harv.*
" byssoideum, *Arn.*
Sargassum vulgare, *Ag.*
" montagnei, *Bail.*
Fucus nodosus, *L.*
" vesciculosus, *L.*
" scorpioides, *Fl. Dan.*
Laminaria fascia, *Ag.*
" saccharina, *Lamour.*
Desmarestia viridis, *Lamour.*
Stilophora rhizodes, *J. Ag.*
Dictyosiphon fœniculaceus, *G*
Chordaria flagelliformis, *Ag.*
" divaricata, *Ag.*
Leathesia tuberiformis, *Gray.*
Ectocarpus viridis, *Harv.*
" littoralis, *Lyngb.*
Chorda filum, *Stack.*
Punctaria latifolia, *Grev.*
" tenuissima, *Grev.*
Bryopsis plumosa, *Lamour.*
Porphyra vulgaris, *Ag.*
Enteromorpha intestinalis, *Li*
" compressa, *Grev.*
" clathrata, *Grev.*
Ulva latissima, *L.*
" linza, *L.*
Hormotrichum younganum, *L*
Chætomorpha tortuosa, *Dw.*
" linum, *Kutz.*
Cladophora arcta, *Dw.*
" glaucescens, *Griff.*
" refracta, *Roth.*
" fracta, *Fl. Dan.*
" glomerata, *L.*
Rhizoclonium riparium, *Roth*
Chætophora pisiformis, *Ag.*
" endiviæfolia, *Ag.*
Draparnaldia glomerata, *Ag*
Batrachospermum moniliforı
Nostoc commune, *Vauch.*

CHARACEÆ.

ella flexilis, *Ag.*
mucronata v. flabellata.
acuminata v. glomerulifera, *A. Br.*
ra coronata, *Ziz.*
fragilis, *Desv.*
fœtida, *A. Br.*
contraria, *A. Br.*

MUSHROOMS—*Fungi.*

aricus mappa, *Batsch.*
rachodes, *Vitt.*
melleus, *Vahl.*
nebularis, *Batsch.*
laccatus, *Scop.*
radicatus, *Bull.*
ochropurpureus, *Berk.*
ostreatus, *Jacq.*
salignus, *Pers.*
petaloides, *Bull.*
atrocœruleus, *Fr.*
prunulus, *Scop.*
polychrous, *Berk.*
campestris, *L.*
epixanthus, *Paul.*
sphagnorum, *Pers.*
orcella, *Bull.*
curtisii, *Berk.*
prinus comatus, *Fr.*
atramentarius, *Bull.*
domesticus, *Pers.*
plicatilis, *Curt.*
ephemerus, *Fr.*
grophorus cinnabarinus, *Fr.*
conicus, *Fr.*
tarius torminosus, *Fr.*
piperatus, *Fr.*
indigo, *Fr.*
volemus, *Fr.*
chrysorheus, *Fr.*
angustissimus.
ssula emetica, *Fr.*
alutacea, *Fr.*
atharellus tubæformis, *Bull.*
crispus, *Fr.*
rasmius plancus, *Fr.*
rotula, *Fr.*
atinus lecontei, *Fr.*
nus stypticus, *Fr.*
Panus dorsalis, *Fr.*
Schizophyllum commune, *Fr.*
Lenzites betulina, *Fr.*
" sepiaria, *Fr.*
" bicolor, *Fr.*
Boletus elegans, *Fr.*
" bovinus, *L.*
" scaber, *Bull.*
" felleus, *Bull.*
Dædalea cinerea, *Fr.*
" confragosa, *Bolt.*
Glœoporus nigropurpurascens.
Polyporus ovinus, *Schæff.*
" tomentosus, *Fr.*
" perennis, *Fr.*
" boucheanus, *Fr.*
" elegans, *Fr.*
" lucidus, *Fr.*
" sulphureus, *Fr.*
" lacteus, *Fr.*
" gilvus, *Fr.*
" adustus, *Fr.*
" cerifluus, *B. & C.*
" resinosus, *Fr.*
" subfuscus, *Fr.?*
" applanatus, *Fr.*
" igniarius, *Fr.*
" scutellatus, *Fr.*
" carneus, *Nees.*
" cinnabarinus, *Fr.*
" biformis, *Kl.*
" hirsutus, *Fr.*
" hirsutulus, *Schw.*
" versicolor, *Fr.*
" abietinus, *Fr.*
" occidentalis, *Kl.*
" medulla-panis, *Fr.*
" laceratus, *Berk.*
" luridus, *B. & C.*
Merulius tremellosus, *Schrad.*
Fistulina hepatica, *Fr.*
Craterellus cornucopioides, *P.*
Thelephora pallida, *Schw.*
Hydnum repandum, *L.*
" suaveolens, *Scop.*
" gelatinosum, *Scop.*
" cirrhatum, *Pers.*
" coralloides, *Scop.*
Irpex tulipiferæ, *Schw.*
" deformis, *Fr.*

Irpex cinnamomeus, *Fr.*
Stereum fasciatum, *Fr.*
" complicatum, *Fr.*
" purpureum, *Pers.*
" spadiceum, *Fr.*
" ochraceo-flavum, *Schw.*
" bicolor, *Fr.*
" tabacinum, *Fr.*
Corticium oakesii, *B. & C.*
Clavaria botrytis, *Pers.*
" stricta, *Pers.*
" inæqualis, *Fr.*
Spathularia flavida, *Pers.*
Pistillaria muscicola, *Fr.*
Tremella aurantia, *Schw.*
Exidia auricula-judæ, *Fr.*
" glandulosa, *Fr.*
Lycoperdon gemmatum, *Batsch.*
" pyriforme, *Schæff.*
" calvescens, *B. & C.*
" wrightii, *B. & C.*
Bovista plumbea, *Pers.*
Scleroderma vulgare, *Fr.*
Geaster hygrometricus, *Pers.*
Lycogala epidendrum, *L.*
Æthalium septicum, *Fr.*
Diderma globosum, *Pers.*
" citrinum, *Fr.*
Didymium xanthopus, *Fr.*
Stemonitis ferruginea, *Ehrh.*
Dictydium microcarpum, *Shd.*
Cribraria purpurea, *Schrad.*
" intricata, *Schrad.*
Arcyria cinerea, *Fl. Dan.*
Trichia rubiformis, *Pers.*
" clavata, *Pers.*
Cyathus campanulatus, *Fr.*
Diplodia viticola, *Desm.*
Nemaspora crocea, *Pers.*
Myxosporium nitidum, *B. & C.*
Uredo solidaginis, *Schw.*
" luminata, *Schw.*
Uredo effusa, *Strauss.*
" leguminosarum, *Lk.*
" pyrolæ, *Strauss.*
Uromyces lespedezæ-violaceæ
Ustilago maydis, *Corda.*
" urceolorum, *DC.*
" utriculosa, *Nees.*
Rœstelia lacerata, *Sow.*
Æcidium grossulariæ, *DC.*
" houstoniatum, *Schw.*
" sambuci, *Schw.*
" hydnoideum, *B. & C.*
Tubercularia vulgaris, *Tode.*
Polythrincium trifolii, *Kze.*
Morchella esculenta, *Pers.*
Geoglossum hirsutum, *Pers.*
Peziza macropus, *Pers.*
" scutellata, *L.*
" calycina, *Schum.*
" cyathoidea, *Bull.*
" agassizii, *B. & C.*
" citrina, *Batsch.*
Bulgaria sarcoides, *Fr.*
Dichæna faginea, *Fr.*
Rhytisma solidaginis, *Schw.*
" acerinum, *Fr.*
" decolorans, *Fr.*
" prini, *Fr.*
" punctatum, *Fr.*
Hysterium lineare, *Fr.*
Xylaria polymorpha, *Pers.*
" hypoxylon, *Ehrh.*
Hypocrea lactifluorum, *Schw.*
Hypoxylon ustulatum, *Bull.*
" cohærens, *Pers.*
" fragiforme, *Pers.*
Diatrype disciformis, *Fr.*
Valsa nivea, *Fr.*
Depazea brunnea, *B. & C.*
" cruenta, *Fr.*
Asterina gaultheriæ, *Curt.*
Eustilbum rehmianum, *Raben*

C.

LIST OF SPECIES OF WHICH SEEDS HAVE BEEN COLLECTED.

natis virginiana, *L.*
atica acutiloba, *Chaix.*
lictrum dioicum, *L.*
cornuti, *L.*
purpurascens, *L.*
unculus abortivus, *L.*
recurvatus, *Poir.*
fascicularis, *Michx.*
ilegia canadensis, *L.*
ha palustris, *L.*
lius laxus, *Salisb.*
ea spicata var. alba, *Michx.*
dalis glauca, *Pursh.*
damine hirsuta, *L.*
bis hirsuta, *Scop.*
canadensis, *L.*
nisia graveolens, *Raf.*
a pedata, *L.*
pubescens v. scabriuscula.
anthemum canadense, *Mx.*
assia caroliniana, *Michx.*
ericum ellipticum, *Hook.*
canadense, *L.*
sarothra, *Michx.*
lea virginica, *Nutt.*
ne stellata, *Ait.*
noctiflora, *L.*
nis githago, *Lam.*
aria grœnlandica, *Spreng.*
serpyllifolia, *L.*
ea major, *Michx.*
ea minor, *Lam.*
thymifolia, *Pursh.*
era rotundifolia, *L.*
ugo verticillata, *L.*
ulaca oleracea, *L.*
a rotundifolia, *L.*
tilon avicennæ, *Gœrt.*
m usitatissimum, *L.*
nium maculatum, *L.*
s toxicodendron, *L.*
s cordifolia, *Michx.*
mnus alnifolius, *L'Her.*
othus americanus, *L.*
nus perennis, *L.*

Melilotus officinalis, *Willd.*
" alba, *Lam.*
Robinia pseudacacia, *L.*
Lespedeza violacea, *Pers.*
Lathyris palustris, *L.*
Amphicarpæa monoica, *Nutt.*
Medicago lupulina, *L.*
Baptisia tinctoria, *R. Br.*
Geum virginianum, *L.*
Prunus virginiana, *L.*
Agrimonia eupatoria, *L.*
Rubus odoratus, *L.*
" strigosus, *Michx.*
" occidentalis, *L.*
" villosus, *Ait.*
" canadensis, *L.*
Rosa rubiginosa, *L.*
Rhexia virginica, *L.*
Œnothera biennis, *L.*
Epilobium hirsutum, *L.*
" coloratum, *Muhl.*
Ribes cynosbati, *L.*
Penthorum sedoides, *L.*
Saxifraga virginiensis, *Michx.*
Mitella diphylla, *L.*
" nuda, *L.*
Hamamelis virginica, *L.*
Daucus carota, *L.*
Pastinaca sativa, *L.*
Aralia nudicaulis, *L.*
Cornus canadensis, *L.*
" florida, *L.*
Lonicera oblongifolia, *Muhl.*
Viburnum opulus, *L.*
" acerifolium, *L.*
Mitchella repens, *L.*
Valeriana sylvatica, *Rich.*
Vernonia noveboracensis, *Willd.*
Eupatorium ageratoides, *L.*
" perfoliatum, *L.*
Diplopappus umbellatus, *T. & G.*
Iva frutescens, *L.*
Ambrosia trifida, *L.*
" artemisiæfolia, *L.*
Xanthium strumarium, *L.*

Helianthus giganteus, *L.*
" strumosus, *L.*
" decapetalus, *L.*
" divaricatus, *L.*
Bidens bipinnata, *L.*
Cirsium lanceolatum, *Scop.*
" discolor, *Spreng.*
" muticum, *Michx.*
Lappa major, *Gært.*
Krigia virginica, *Willd.*
Galinsoga parviflora, *Cav.*
Hieracium venosum, *L.*
" scabrum, *Michx.*
" gronovii, *L.*
" paniculatum, *L.*
Nabalus altissimus, *Hook.*
Taraxacum dens-leonis, *Desf.*
Lactuca canadensis, *L.*
Mulgedium leucophæum, *DC.*
Sonchus oleraceus, *L.*
Lobelia inflata, *L.*
Campanula rotundifolia, *L.*
Gaylussaccia resinosa, *T. & G.*
Vaccinium uliginosum, *L.*
Chiogenes hispidula, *T. & G.*
Gaultheria procumbens, *L.*
Kalmia latifolia, *L.*
" angustifolia, *L.*
" glauca, *Ait.*
Azalea nudiflora, *L.*
Ledum latifolium, *Ait.*
Chimaphila umbellata, *Nutt.*
Plantago maritima v. juncoides.
Epiphegus virginiana, *Bart.*
Verbascum blattaria, *L.*
" thapsus, *L.*
Linaria vulgaris, *Mill.*
Veronica officinalis, *L.*
Gerardia flava, *L.*
Pedicularis canadensis, *L.*
Mimulus ringens, *L.*
Verbena hastata, *L.*
Trichostema dichotomum, *L.*
Isanthus cœruleus, *Michx.*
Collinsonia canadensis, *L.*
Brunella vulgaris, *L.*
Lithospermum officinale, *L.*
Cuscuta gronovii, *Willd.*
Solanum dulcamara, *L.*
Physalis viscosa, *L.*
Datura stramonium, *L.*
Sabbatia stellaris, *Pursh.*
Menyanthes trifoliata, *L.*
Asclepias cornuti, *Decaisne.*
Phytolacca decandra, *L.*
Chenopodium album, *L.*
" glaucum, *L.*
" hybridum, *L.*
" urbicum, *L.*
Atriplex rosea, *L.*
" arenaria, *Nutt.*
Amarantus retroflexus, *L.*
Polygonum incarnatum, *Ell.*
" tenue, *Michx.*
" dumetorum, *L.*
" sagittatum, *L.*
" hydropiper, *L.*
" aviculare, *L.*
" persicaria, *L.*
Rumex verticillatus, *L.*
Lindera benzoin, *Meisner.*
Euphorbia polygonifolia, *L.*
Euphorbia platyphylla, *L.*
Empetrum nigrum, *L.*
Urtica urens, *L.*
Bœhmeria cylindrica, *Willd.*
Myrica gale, *L.*
" cerifera, *L.*
Comptonia asplenifolia, *Ait.*
Betula lenta, *L.*
" papyracea, *Ait.*
" alba v. populifolia, *Spk.*
Alnus viridis, *DC.*
" serrulata, *Ait.*
Pinus rigida, *Miller.*
Abies nigra, *Poir.*
Sparganium simplex, *Huds.*
Naias flexilis, *Rostk.*
Potamogeton claytonii, *Tuck.*
" oakesianus, *Robb.*
Scheuchzeria palustris, *L.*
Sagittaria variabilis, *Engelm.*
Corallorhiza multiflora, *Nutt.*
Sisyrinchium bermudiana, *L.*
Smilax glauca, *Walt.*
Trillium erectum, *L.*
" erythrocarpum, *Michx.*
Streptopus amplexifolius, *DC.*
Clintonia borealis, *Raf.*
Smilacina racemosa, *Desf.*

ıragus officinalis, *L.*
ım canadense, *L.*
ıus maritimus, *Lam.*
marginatus, *Rostk.*
bufonius, *L.*
tenuis, *Willd.*
articulatus, *L.*
alpinus v. insignis, *Fr.*
nodosus, *L.*
canadensis, *J. Gay.*
ırus michauxianus, *Schultes.*
grayii, *Torr.*
filiculmis, *Vahl.*
nuttallii, *Torr.*
charis obtusa, *Schultes.*
ous pauciflorus, *Light.*
pungens, *Vahl.*
planifolius, *Muhl.*
phorum alpinum, *L.*
polystachyon, *L.*
nchospora glomerata, *Vahl.*
x pauciflora, *Light.*
siccata, *Dew.*
teretiuscula, *Good.*
vulpinoidea, *Michx.*
rosea var. radiata, *Dew.*

Carex chordorhiza, *Ehrh.*
" canescens, *L.*
" deweyana, *Schwein.*
" stellulata, *L.*
" scoparia, *Schk.*
" lagopodioides, *Schk.*
" straminea, *Schk.*
" aquatilis, *Wahl.*
" stricta, *Lam.*
" limosa, *L.*
" irrigua, *Smith*
" laxiflora v. blanda, *Gray.*
" pedunculata, *Muhl.*
" emmonsii, *Dew.*
" pennsylvanica, *Lam.*
" arctata, *Boott.*
" extensa, *Good.*
" filiformis, *L.*
" vestita, *Willd*
" tentaculata v. gracilis.
" intumescens, *Rudge.*
" folliculata, *L.*
" monile, *Tuck.*
" lenticularis, *Michx.*
Panicum clandestinum, *L.*
Andropogon furcatus, *Muhl.*

D.

SPECIMENS OBTAINED BY CONTRIBUTION AND EXCHANGE.

From W. R. Gerard, *Poughkeepsie.*

lsola kali, *L.*
s ochroleuca?
ucanthemum vulgare v. tubuliflorum, *Tenney.*
naria vulgaris v. peloria.
ola tricolor v. arvensis, *DC.*

From G. T. Stevens, M. D., *Albany.*

nus inops, *Ait.*

From S. H. Wright, M. D., *Penn Yan.*

dum telephioides, *Michx.*
sa rubiginosa, *L.*
llisneria spiralis, *L.*
mex orbiculatus, *Gray.*
rex gynandra, *Schw.*

Carex extensa, *Good.*
" alata, *Torr.*
" intumescens, *Rudge.*
" retrorsa v. hartii, *Gray.*
" tuckermani, *Boott.*
" retroflexa, *Muhl.*
" stricta v. xerocarpa, *Gray.*

From E. L. HANKENSON, *Newark.*

Rosa setigera, *Michx.*
Vaccaria vulgaris, *Host.*
Scirpus pauciflorus, *Lightf.*
" smithii, *Gray.*
Nymphæa tuberosa, *Paine.*
Atriplex patula v. littoralis, *Gray.*
Polygonum incarnatum, *Ell.*
Potentilla paradoxa, *Nutt.*
Calendula officinalis, *L.*

From G. B. BRAINERD, *Brooklyn.* (Algæ mounted.)

Delesseria leprieurei, *Harv.*
Rhodomela rochei, *Harv.* 3 specimens.
Chylocladia baileyana v. divaricata, *Harv.*
Spyridia filamentosa, *Harv.*
Polysiphonia formosa, *Suhr.* 4 specimens.
" fastigiata, *Grev.*
" nigrescens, *Grev.*
Callithamnion corymbosum, *Ag.*
" byssoideum, *Arn.*
" americanum, *Harv.* 2 specimens.
Griffithsia corallina v. tenuis, *Harv.*
Cystoclonium purpurascens, *Kutz.*
Cladostephus spongiosus, *Ag.*
Asperococcus echinatus, *Grev.*
Dictyosiphon foeniculaceus, *Grev.*
Mesogloia vermicularis, *Ag.* ?
Fucus ceranoides, *Ag.*
Sargassum bacciferum, *Ag.*
Punctaria tenuissima, *Grev.* 2 specimens.
Chætophora pisiformis, *Ag.*

From C. F. AUSTIN, *Closter, N. J.*

Cynosurus cristatus, *L.*
Danthonia compressa, *Aust.*
Dicranum schreberi, *Hedw.*
Barbula fallax, *Bry. Eur.*
Fissidens exiguus, *Sulliv.*
Homalia jamesii, *Schp.*
Leskea nervosa, *Schwægr.*

From T. F. ALLEN, M. D., *New York.*

olffia columbiana, *Karsten.*

From V. COLVIN, *Albany.*

malia gracilis, *James.*

From B. D. GILBERT, *Utica.* (By exchange.)

benaria rotundifolia, *Richardson.*
lypso borealis, *Salisb.*
mium album, *L.*
ola cucullata, var., *Ait.*

From Hon. G. W. CLINTON, *Buffalo.*

nularia vulgaris, *Mich.*

From E. C. HOWE, M. D., *Fort Edward.*

rex tuckermanii, *Boott.*
" sparganioides, *Muhl.*
" stellulata v. scirpoides, *Gray.*
" vulpinoidea, *Michx.*
" scoparia, *Schk.*
" lagopodioides, *Schk.*
" cephalophora, *Muhl.*
" hystricina, *Willd.*
" lupulina, *Muhl.*
" retrocurva, *Dew.*
" irrigua, *Sm.*
mbristylis capillaris, *Gray.*
perus grayii, *Torr.* Var.
plenium ebeneum, *Ait.* Var.
oclea sensibilis, *L.* Var. near obtusilobata, *Torr.*
etes echinospora v. braunii, *Engelm.*
acamptodon splachnoides, *Brid.*
pnum nitens, *Schreb.* Var.
aricus mappa, *Batsch.*
" procerus, *Scop.*
" rachodes, *Vitt.*
" cristatus, *Bolt.*
" melleus, *Vahl.*
" laccatus, *Scop.*
" radicatus, *Bull.*
" velutipes, *Curt.*
" ochropurpureus, *Berk.*
" epipterygius, *Scop.*
" ostreatus, *Jacq.*
" salignus, *Pers.*
" semiorbicularis, *Bull.*

Agaricus semicaptus, *B. & C.*
" atrocœruleus, *Fr.*
" applicatus, *Batsch.*
" curtisii, *Berk.*
" polychrous, *Berk.*
" campestris, *L.*
" arvensis, *Schæff.*
" cretaceus, *Fr.*
" sublateritius, *Schæff.*
" epixanthus, *Paul.*
" orcella, *Bull.*
" subinvolutus, *Batsch.*
" clypeatus, *L.*
" campanella, *Batsch.*
" galericulatus, *Pers.*
Paxillus atrotomentosus, *Fr.*
Hygrophorus cinnabarinus, *Fr.*
" ceraceus, *Fr.*
" conicus, *Fr.*
Lactarius indigo, *Fr.*
" subtomentosus, *B. & R.*
" fuliginosus, *Fr.*
Russula emetica, *Fr.*
Cantharellus tubæformis, *Bull.*
" albidus, *Fr. ?*
" crispus, *Fr.*
Marasmius plancus, *Fr.*
" rotula, *Fr.*
Panus stypticus, *Fr.*
Schizophyllum commune, *Fr.*
Lenzites betulina, *Fr.*
" sepiaria, *Fr.*
" cratægi, *Berk.*
" bicolor. *Fr.*
Polyporus brumalis, *Fr.*
" boucheanus, *Fr.*
" giganteus, *Fr.*
" labyrinthicus, *Fr.*
" resinosus, *Fr.*
" applanatus, *Fr.*
" fomentarius, *Fr.*
" igniarius, *Fr.*
" subfuscus, *Fr.*
" caroliniensis, *B. & C.*
" carneus, *Nees.*
" cinnabarinus, *Fr.*
" radiatus, *Fr.*
" hirsutus, *Fr.*
" versicolor, *Fr.*
" abietinus, *Fr.*

porus sullivantii, *Mont.*
" virgineus, *Schw.*
" medulla-panis.
" vaporarius, *Fr.*
" elegans, *Fr.*
" lepideus, *Fr.*
" scutellatus, *Schw.*
" laceratus, *Berk.*
" adustus, *Fr.*
erulius tremellosus, *Schrad.*
ædalea confragosa, *Bolt.*
lœoporus nigropurpurascens, *Schw.*
istulina hepatica, *Fr.*
ydnum repandum, *L.*
" ochraceum, *Pers.*
" himantia, *Schw.*
" mucidum, *Pers.*
" adustum, *Schw.*
" læticolor, *B. & C.*
pex tulipiferæ, *Schw.*
" cinnamomeus, *Fr.*
helephora terrestris, *Ehrh.*
" pallida, *Schw.*
tereum striatum, *Fr.*
" complicatum, *Fr.*
" purpureum, *Pers.*
" hirsutum, *Fr.*
" rubiginosum, *Schrad.*
" imbricatulum, *Schw.*
" frustulosum, *Fr.*
" acerinum, *Fr.*
orticium oakesii, *B. & C.*
" ochroleucum, *Fr.*
" cinereum, *Fr.*
" scutellatum. *B. & C.*
yphella capula, *Fr.*
" muscicola, *Fr.*
lavaria inæqualis, *Fr.*
istillaria muscicola, *Fr.*
remella mesenterica, *Retz.*
" sarcoides, *With.*
xidia truncata, *Fr.*
" cinnabarina, *B. & C.*
acrymyces stillatus, *Fr.*
" tortus, *Fr.*
tychogaster albus, *Corda.*
ycoperdon gemmatum, *Batsch.*
ovista cyathiformis, *Bosc.*
easter hygrometricus, *Pers.*
ycogala epidendrum, *L.*

Æthalium septicum, *Fr.*
Physarum nutans, *Pers.*
Stemonitis ferruginea, *Ehrh.*
Dictydium microcarpum, *Schrad.*
Trichia clavata, *Pers.*
" turbinata, *With.*
Cyathus crucibulum, *Pers.*
Sphærobolus stellatus, *Tode.*
Mycrothyrium microscopicum, *Desm.*
Diplodia viticola, *Desm.*
Sphæropsis insignis, *B. & C.*
Vermicularia liliaceorum, *Schw.*
Septoria herbarum, *B. & C.*
Stilbospora ovata, *Pers.*
" pyriformis, *Hoffm.*
Cytispora rubescens, *Fr.*
" leucosperma, *Fr.*
Nemaspora crocea, *Pers.*
Myxosporium nitidum, *B. & C.*
Torula herbarum, *Pers.*
Septonema spilomeum, *Berk.*
Puccinia aculeata, *Schw.*
" graminis, *DC.*
" solida, *Schw.*
" waldsteiniæ, *Curt.*
" junci, *Schw.*
" investita, *Schw.*
Uredo rubigo, *DC.*
" caricina, *DC.*
" epitea, *Kze,*
" polygonorum, *DC.*
" solidaginis, *Schw.*
" cylindrica, *Strauss.*
" potentillæ, *DC.*
" ruborum, *DC.*
" luminata, *Schw.*
" effusa, *Strauss.*
" pyrolæ, *Strauss.*
" saliceti, *Schl.*
" violarum, *DC.*
Uromyces lespedezæ-violaceæ, *Schw*
" lespedezæ-procumbentis, *Schw.*
" hyperici, *Schw.*
" apiculosa, *Lev.*
Ustilago segetum, *Pers.*
" junci, *Schw.*
Æcidium compositarum, *Mart.*
" gnaphaliatum, *Schw.*
" hydnoideum, *B. & C.*
Cystopus candidus, *Lev.*

picoccum micropus, *Corda.*
ibercularia vulgaris, *Tode.*
" granulata, *Pers.*
porocybe calicioides, *Fr.*
elminthosporium macrocarpon, *Grev.*
odosporium rigidum, *Schw.*
olythrincium trifolii, *Kze.*
adosporium herbarum, *Lk.*
enicillium crustaceum, *Fr.*
elvella esculenta, *L.*
eoglossum hirsutum, *Pers.*
" difforme, *Fr.*
eziza translucida, *B. & C.*
" viticola, *Pers.*
" sanguinea, *Pers.*
" lenticularis, *Fr.*
" citrina, *Batsch.*
" herbarum, *Pers.*
" compressa, *A. & S.*
" flexella, *Fr.*
lenia candida, *Pers.*
scobolus conglomeratus, *Schw.*
ulgaria inquinans, *Fr.*
hinctrina turbinata, *Fr.*
atellaria discolor, *Mont.*
" rhabarbarina, *Berk.*
rnula craterium, *Fr.*
ermatea fascicularis, *Fr.*
enangium populinum, *Schw.*
" ribis, *Fr.*
" pinastri, *Fr.*
ichæna faginea, *Fr.*
hytisma solidaginis, *Schw.*
" vaccinii, *Fr.*
" acerinum, *Fr.*
" punctatum, *Fr.*
" salicinum, *Fr.*
" blakei, *Curt.*
nacidium coronatum, *Fr.*
" crustaceum, *B. & C.*
ysterium elongatum, *Wahl.*
" hiascens, *B. & C.*
" lineare, *Fr.*
" pinastri, *Schrad.*
ylaria polymorpha, *Pers.*
" hypoxylon, *Ehrh.*
ypocrea lactifluorum, *Schw.*
" citrina, *Pers.*
" rufa, *Pers.*
" richardsonii, *B. & M.*

Hypoxylon ustulatum, *Bull.*
" mummularium, *Bull.*
" clypeus, *Schw.*
" multiforme, *Fr.*
" cohærens, *Pers.*
" fuscum, *Pers.*
" rubiginosum, *Pers.*
" serpens, *Pers.*
Diatrype stigma, *Fr.*
Valsa stilbostoma, *Fr.*
" americana, *B. & C.*
" constellata, *B. & C.*
Nectria cinnabarina, *Fr.*
" cucurbitula, *Fr.*
Sphæria ovina, *Pers.*
" pulvis-pyrius, *Pers.*
" myriocarpa, *Fr.*
" papilla, *Schw.*
" pertusa, *Pers.*
" fissurarum, *B. & C.*
" saubineti, *Mont.*
" picea, *Pers.*
" rostrata, *Fr.*
" ulmea, *Schw.*
" lespedezæ, *Schw.*
" limæformis, *Schw.*
" aculeata, *Schw.*
" acuminata, *Sow.*
" nigrella, *Fr.*
" verbascicola, *Schw.*
" potentillæ, *Schw.*
" punctiformis, *Pers.*
" fusca, *Pers.* Var.
" disciformis, *Hoffm.*
" coryli, *Batsch.*
" fimbriata, *Pers.*
" quercina, *Pers.*
" epidermidis v. microscopica, *Desm.*
" desmazierii, *B. & Br.*
" nivea, *Hoffm.*
" sordaria, *Fr.*
Dothidea omans, *Schw.*
Erysiphe communis, *Schl.*
" ceanothi, *Schw.*
Phyllactinia guttata, *Lev.*
Asterina gaultheriæ, *Curt.*
Erineum fagineum, *Pers.*
" luteolum, *Kze.*
" alnigerum, *Kze.*
" aureum, *Pers.*

neum vitis, *DC.*
erotium orobanches, *Schw.*
varium, *Pers.*

E.

EDIBLE FUNGI.

aricus procerus, *Scop.*
rachodes, *Vitt.*
melleus, *Vahl.*
personatus, *Fr.*
nebularis, *Batsch.*
radicatus, *Bull.*
ostreatus, *Jacq.*
salignus, *Pers.*
prunulus, *Scop.*
campestris, *L.*
arvensis, *Schæff.*
orcella, *Bull.*
prinus comatus, *Fr.*
atramentarius, *Bull.*
tarius piperatus, *Fr.*
angustissimus, *Lasch.*
volemus, *Fr.*
ssula alutacea, *Fr.*
rasmius oreades, *Fr.*
letus bovinus, *L.*
elegans, *Fr.*
scaber, *Bull.*
lyporus ovinus, *Schæff.*
giganteus, *Fr.*
sulphureus, *Fr.*
tulina hepatica, *Fr.*
dnum repandum, *L.*
coralloides, *Scop.*
varia botrytis, *Pers.*
emella mesenterica, *Retz.*
vista plumbea, *Pers.*
rchella esculenta, *Pers.*
lvella esculenta, *L.*

F.

SPECIES GROWING SPONTANEOUSLY IN THE STATE AND NOT BE REPORTED.

ELATINE CLINTONIANA, *sp. nov.*

Slender, erect; leaves cuneate oblong or narrowly obovate; ers with conspicuous rose-red or purplish, spreading petals; slightly curved, ribbed and pitted.

Stems cæspitose, slender, simple, erect, abundantly rootin the base, 3″–10″ high; leaves sessile, varying from oblong to o ceolate and narrowly obovate, obtuse, tapering to the base, r fleshy, very obscurely nerved, entire, minutely whitish gland dotted; flowers sessile, single in the axils of the leaves, dime sepals oblong-ovate, obtuse, shorter than the petals and about third as broad; petals broadly ovate or suborbicular, ob spreading, twice the length of the ovary, rose-red or purplish; mens longer than the sepals, scarcely as long as the petals, globose anthers; stigmas nearly sessile, contiguous, persistent; sule subglobose often slightly depressed at the apex, usually fo eight seeded; seeds nearly straight, longitudinally ribbed, p in rows.

Rocky shores of Bowman's pond, Sandlake, Rensselaer co July and August.

This plant forms quite extensive and rather dense tur patches. The smaller forms have three or four pairs of le narrow and nearly uniform in width, and one or two purplis flowers, all clustered or closely placed at the top of the stem lower part of which is naked, or furnished with long, slender lets. The larger plants have the leaves broader, more dist inserted, more tapering toward the base, the flowers more nu ous and paler or rose-red. A cross section of the stem re eight tubes formed by thin dissepiments radiating from the ce

The distinctive characters of the species, when compared *E. americana*, are found in its more dense, erect mode of gr smaller size, more slender stems, more narrow leaves, and espe in its conspicuous, spreading, bright-colored petals. The also furnish distinctive but microscopic characters. They shorter, less curved, more distinctly ribbed longitudinally, wrinkled transversely, the impressions shorter, more regular in line and more distantly placed, the interspaces being usually a as wide as the impressions. In the seeds of *E. americana* interspaces are narrow and more elevated, so that when vi under the microscope by transmitted light, these elevation wrinkles appear along the margins of the seed like ro papillæ.

It gives me great pleasure to dedicate this neat little spec my much esteemed friend and active co-laborer in botany Hon. G. W. Clinton.

PHA FRUTICOSA, *L.*

Banks of the Hudson below Greenbush. Doubtless escaped m some garden.

S NEGLECTUS, *sp. nov.*

Stems recurved, armed with numerous straight prickles; berries k red, having a whitish bloom; calyx hispid.

Stems long, recurved, when young covered with a glaucous om, armed with numerous rather strong, straight prickles, those the flowering branches and petioles sometimes recurved; leaves oliate, the leaflets ovate-acuminate, coarsely and doubly serrate, en above, white tomentose beneath, with rather prominent stomosing veinlets, lateral ones sessile, terminal one often equally two or three lobed and subcordate; flowers on ascend- or erect branches, axillary and subcorymbose, the pedicels ned with unequal slender prickles, intermingled with stiff, ndular hairs; calyx hispid; fruit dark clouded red, with a itish tomentose bloom. Flowers in June, fruit ripe in July. ndlake. Not common.

This species is intermediate between *R. strigosus* and *R. occident-s*, and combines to a considerable extent the characters of both. om the former it may be distinguished by its mode of growth nich is exactly like that of *R. occidentalis*), long recurved stems l stout prickles; from the latter by its more numerous, straight ckles, sessile lateral leaflets and hispid calyx; from both by the or and flavor of its berries. These have a peculiarly agreeable te, which probably suggested the name "*Cream Berries*," by ich the fruit is known to the inhabitants of the locality above ntioned.

t occurs sparingly in recently cleared lands, associated with its rly allied species. It is recommended to the attention of gar-ners and fruit growers as worthy of cultivation.

t seems to have been previously known to some of our botanists, was probably considered a sportive form of one or another of congeners, in view of which a name has been given indicative its supposed past treatment.

NDULA OFFICINALIS, *L.*

Newark, Wayne county. E. L. Hankenson. A garden scape.

NIUM CÆSPITOSUM, *Michx.*

Summit of Mt. Whiteface, Essex county.

UM ALBUM, *L.*

Roadsides, Herkimer county. B. D. Gilbert. Introduced.

HA ARVENSIS, *L.*

North Greenbush. Introduced.

PINUS INOPS, *Ait.*

Barren plains west of Keeseville; also, near Wadham's M Essex county. G. T. Stevens. New Jersey has been consid the northern limit of this species, and its occurrence two hun and fifty miles farther north without intervening stations is t remarkable, and affords another instance of remotely isolated tions. There are about a half dozen trees near Wadham's M from five to eight feet high, some larger ones having been rec cut down.

POTAMOGETON OAKESIANUS, *Robbins.*

Bowman's pond, Sandlake. The specimens referred to species do not quite agree with the description. The stems ar much branched, but nearly or quite simple; yet the leaves fruit agree so exactly with the characters ascribed to this sp that our specimens are referred to it without hesitation.

POTAMOGETON AMPLIFOLIUS, *Tuck.*

North Elba, Essex county.

FAGOPYRUM TARTARICUM, *Gært.* (*Fagotriticum sibiricum, L.*)

Escaped from cultivation to roadsides and waste places. N Elba.

IRIS OCHROLEUCA. (?)

The plant here noticed is a large, yellow flowered species; p ably a garden scape. Essex county. Dr. Stevens. Near Po keepsie. W. R. Gerard.

JUNCUS MARITIMUS, *Lam.*

Coney Island. The plant under consideration is believed the true *J. maritimus*, now found in this country for the first the *J. maritimus* of American authors having been shown by D Engelmann, in Revision N. A. Junci, to be *J. Ræmerianus*, Sch Probably introduced.

JUNCUS ALPINUS var. INSIGNIS, *Fries.*

Shore of Lake Champlain, near Port Kent. The heads more flowers than usual, there being 8–12 in each.

CAREX ALATA, *Torr.*

Swamps, Junius, Seneca county. S. H. Wright.

DANTHONIA COMPRESSA, *sp. nov.*

"Stems compressed-trigonal, the narrowest side concave others convex, slender (one foot high), decumbent at the weak, smooth or minutely roughened below the joints. L very long, narrow and flat, minutely roughened on the ma

l veins, the sheaths smooth. Ligule with long silky fringes. ikelets racemose-paniculate, about ten. Glumes 4½″–5″ long, ıte, concave, smooth, 3-nerved, with broad white margins, equal. orets with a tuft of silky hairs at base; lower palet ovate, bifid, e teeth very slender (1½″ long), clothed with silky hairs in seven es, and on the margins below (membranaceous and naked above the margin), awn about twice as long as the palet, flat and isted below but scarcely colored; inner palet membranaceous, rveless, ciliate." *Austin MSS.*

Woods. Danube, Herkimer county, July, 1868. C. F. Austin.
re.

Compared with *Danthonia spicata*, this species differs in its ıger leaves,—the upper ones overtopping the panicle,—its looser nicle and more numerous spikelets, the longer teeth of the lower let and the tuft of hairs at the base of the florets.

CHARACEÆ.

LLA FLEXILIS, *Ag.*

Ponds and slow flowing streams. Sandlake and North Elba.

ELLA MUCRONATA var. FLABELLATA, *Kutz.*

Lower Saranac Lake.

LLA ACUMINATA var. GLOMERULIFERA, *A. Braun.*

Lower Saranac Lake. Rare.

RA CORONATA, *Ziz.*

This species, with its semi-transparent stems and branches, destiıe of cortical incrustation, might at first sight be mistaken for a tella. It grows in shallow water in Saranac lake, intermingled th the two preceding species.

RA FRAGILIS, *Desv.*

Mud Lake, Herkimer county. A small form with long bracts; metimes cineresccnt.

RA FŒTIDA, *A. Braun.*

(*C. vulgaris* of authors, in part.) Common, especially in limeıe regions. Our specimens are from Albany, Schenectady and erkimer counties.

RA CONTRARIA, *A. Braun.*

Cedar Lake, Litchfield, Herkimer county. Much of the bottom of e lake is covered with this and the two preceding species, the ınts ranging from a few inches to two or three feet in length. In other part of the State have I seen the Charæ so abundant as in e southern towns of Herkimer county.

MUSCI.

SPHAGNUM GIRGENSOHNII, *Russow.*

Sphagnous swamps. Common. July. This moss resemb large forms of *S. acutifolium.* Its branches, however, are gen ally longer and more distant, the stems thicker, and, when moi more brittle. When viewed from above in its native swamps usually presents a more stellate appearance, its five-ranked branch being less condensed at the summit of the stem than they are that species. I have seen no red specimens, which are so co mon in *S. acutifolium.* Its inflorescence is dioecious. A fo occurs on the moist rocks of the Adirondack Mountains not unli *S. teres* in general appearance.

SPHAGNUM WULFIANUM, *Girgen.*

Knolls and slight elevations in sphagnous swamps. More Saratoga county. E. C. Howe. Sandlake. Sterile.

A species easily recognized by its rigid red stems and numero short branches, those at the summit of the stem being crowded i a dense subglobose head.

SPHAGNUM RECURVUM, *Beauv.*

Swamps and bogs. Common. July. This species has be considered by some to be only a variety of *S. cuspidatum*, but will probably prove to be a good species. It is not difficult to se rate it from the various forms of *S. cuspidatum*, its branches bei more uniform in length and curvature, and the leaves ever ranked and considerably recurved. The spores are yellow.

SPHAGNUM LARICINUM, *Lindbg.*

Cranberry marsh, Sandlake; its only known locality in t country. August.

A variety closely resembling *S. cuspidatum.*

ANODUS DONIANUS, *Bryol. Europ.*

Shaded rocks. Little Falls. July. Not yet found elsewhere this country, but collected by Drummond in British America. is an extremely small species.

PALUDELLA SQUARROSA, *L.*

Swamps. Arcadia, Wayne county. Hankenson. Warren, H kimer county. Sterile. Found in British America by Drummo A very pretty moss—the bright green, recurved-squarrose lea contrasting beautifully with the dense reddish brown radicu tomentum.

PHORIDIUM PECKII, *sp. nov.*

Plantæ subunciales, compacte cæspitosæ, superne flavidulo-virides, rne rufescentes, tomento radiculari arcte intertextæ. Caulis in- ando fastigiato-ramosus. Folia conferta humida erecto-patentia, a crispata, lineari-lanceolata sensim acutissima, supra basim per- em ovatam concavam subamplexantem leniter constricta dehinc nato-subcomplicata, margine (ut folii utraque pagina) plus minus ute papilluloso, erecto; costa tereti valida subapicem finiente; latione densa guttulata, cellulis basis mediæ oblongis margines us minoribus quadratis. Flores masculi numerosi, singuli vel regati, axillares; antheridiis 5–7, paraphysatis; perigonialibus rioribus superne serrulatis. Flores feminei et fructus desideran- "—*Sullivant MSS.*

"In size and general aspect this moss resembles *A. lapponicum* nd *A. mougeotii*, but is distinguished by its broader leaf differ- ntly areolated, and with a slight but evident constriction above its ase." *Sullivant.*

Under overhanging rocks, Catskill Mountains, Greene county.

This moss was found growing in a single patch three or four feet in iameter. The growth is quite dense, the stems are simple or fas- giately branched, mostly about one inch high; the leaves are umerous, closely imbricating, the upper ones yellowish green, the wer ones dull reddish brown, intermingled with a short, close, adicular tomentum, all linear lanceolate, rather abruptly sharp ointed, slightly constricted above the base, more or less minutely apillose, densely areolated, the areolæ of the middle of the base blong, towards the margins smaller and quadrate. The foliage is risped when dry, erect-spreading when moist. It opens under th fluence of moisture much more slowly than does that of *A. lap- onicum* or of *A. mougeotii*. When moist the greater density of he foliage and the broader leaves give to the plant an appearance uite distinct from the two closely related species, which appearance nables it to be distinguished from them quite readily without a icroscopic examination.

CINODON PULVINATUS, *Bryol Europ.*

Exposed surfaces of rocks. Catskill Mountains. New to this ountry. The specimens are without fruit, and to that extent the pecies must remain in doubt.

BLYODON DEALBATUS, *Beauv.*

Thin soil covering rocks, near Cedarville, Herkimer county.

UM CONCINNATUM, *Grev.*

Crevices of rocks. Catskill Mountains. Sterile.

IALIA GRACILIS, *James in lit. Sp. nov.*

Stems slender, irregularly subpinnately branched, prostrate or scending, bright shining green; branches unequal, more or less

distantly placed, often long-attenuated; leaves unequal, loose imbricating, ovate-oblong, very obtuse, subapiculate, minute toothed toward the apex, the lower margin slightly excavate incurved; areolation subrhomboidal, longer in the middle of th base of the leaf; costa obsolete or none. Fruit wanting.

Rocks. Helderberg Mountains. V. Colvin. Sandlake. Th stems often appear interruptedly leafy, the leaves being in ce tain places greatly reduced in size. They are also minute on th attenuated part of the branches. The larger ones are subdistic ously arranged, and the areolation is rather large. This plant w first discovered by Mr. T. P. James, who has given the very appr priate specific name under which it is here described.

HYPNUM SCORPIOIDES, *L.*

Marshes. Litchfield, Herkimer county. I believe the discover of this species in our State belongs to Rev. J. A. Paine, Jr., t whom the locality was made known to me.

PLAGIOTHECIUM TURFACEUM, *Lindbg.*

Ground and old logs in woods. Fort Edward, E. C. How Warwick Mountains, C. F. Austin. Helderberg Mountains.

A species closely resembling *P. muhlenbeckii*, and possibly ru ning into it, though I have noticed no intermediate forms. It distinguished by the more narrow elongated areolation of th leaves, and the less enlarged cells at their basal angles.

PLAGIOTHECIUM PILIFERUM VAR. BREVIPILUM, *Bryol Europ.*

Under overhanging rocks and on thin soil in crevices. Catski and Adirondack Mountains. Very rare. Sterile. It may prov to be a good species.

HEPATICÆ.

RICCIA SULLIVANTII, *Austin in lit. Sp. nov.*

Frond with air cavities, green both sides, orbicular, 5″–8″ diameter, repeatedly dichotomously divided, the laciniæ oblon linear, plane when moist, channeled above when dry, apices obtus bilobed; upper surface becoming many-pitted with age, especial toward the base; lower surface bearing copious, long filamento rootlets; capsule single at or near the furcations, bursting from t lower surface of the frond; spores dark brown, reticulated, abo $\frac{1}{500}$ of an inch in diameter.

Low grounds in cultivated fields. New Lots, Long Island, Se tember.

JUNGERMANNIA SETIFORMIS, *Ehrh.*

Rocks. Top of Mt. McIntyre.

JUNGERMANIA DIVARICATA, *Eng. Bot.*

On mosses. Catskill and Adirondack Mountains.

DULA PALLENS, *Nees.*

Shaded rocks. Catskill Mountains. Sterile. Not common.

LICHENS.

NEA BARBATA var. FLORIDA, *Fr.*

Trees, especially in mountain woods. Common and fertile.

NEA BARBATA var. HIRTA, *Fr.*

Old rail and board fences. Common, but sterile.

NEA BARBATA var. DASYPOGA, *Fr.* Trees on mountains.

NEA LONGISSIMA, *Ach.*

Trees. Adirondack Mountains.

This and the preceding species are plentiful in low woods in North Elba, frequently giving a peculiar gray hue to whole tracts of balsam firs, which trees are especially subject to the attacks of these parasites. The opinion is prevalent among the inhabitants that the "gray moss" causes the death of the tree on which it grows. Certainly no thrifty tree can be found with an abundance of these lichens upon it. All thus infested are either dead or apparently dying, the leaves being limited to the mere extremities of the branches. The inference is that the lichens have induced the death or the diseased condition of the tree. It is probable that this is to some extent true, and yet, on the other hand, the death of the tree from other causes affords conditions favorable to the growth of the lichen. The shore of Lake Placid is in some places bordered by dead trees loaded with these same species of Usnea. These trees were killed by the inundation of their roots, the water of the lake having been raised by a dam at its outlet, and, so far as can be ascertained, they were destitute of these lichens while living.

ECTORIA JUBATA var. CHALYBEIFORMIS, *Ach.*

Trees, old fences, and sometimes on rocks. Common, but sterile.

ECTORIA JUBATA var. IMPLEXA, *Fr.*

Trees in mountain woods. Adirondack Mountains. Sterile.

ERNIA PRUNASTRI, *Ach.*

Trees and old fences. Fertile specimens were found on trees and on shrubs in a swamp, Catskill Mountains.

ERNIA FURFURACEA, *Mann.*

Trees in woods. Common.

EVERNIA FURFURACEA var. CLADONIA, *Tuck.*

Trees. Catskill and Adirondack Mountains. Sterile.

RAMALINA CALICARIS var. FASTIGIATA, *Fr.*

Trunks and branches of trees, shrubs and old fences. Ver common.

RAMALINA CALICARIS var. FARINACEA, *Schaer.*

Rocks; sometimes on trees. Sterile.

RAMALINA CALCARIS var. INFLATA, *Tuck.*

Trunks of pine trees. Saranac Lake.

CETRARIA ACULEATA, *Fr.*

Summit of Mt. Whiteface. Sterile.

CETRARIA ISLANDICA, *Ach.*

Tops of the high peaks of the Adirondack Mountains. Edibl This is the well-known "*Iceland moss*," a nutritious, and, in som northern regions, almost a necessary article of food for both ma and beast.

CETRARIA CUCULLATA, *Ach.*

Summit of Mount Whiteface.

CETRARIA CILIARIS, *Ach.*

Trunks and branches of coniferous trees, old fences, etc. Ver common.

CETRARIA LACUNOSA, *Ach.*

Coniferous trees, dead branches and old rails. Common in mou tainous regions.

CETRARIA OAKESIANA, *Tuck.*

Trees. Catskill Mountains.

NEPHROMA ARCTICUM, *Fr.*

Rocks. Adirondack Mountains. A northern species, as its nam implies, which will hardly be found south of the Adirondac region.

NEPHROMA TOMENTOSUM, *Kœrb.*

Granite rocks and boulders. Sandlake.

NEPHROMA HELVETICUM, *Ach.*

Rocks. Sandlake and Catskill Mountains.

EPHROMA LÆVIGATUM, *Ach.*

Granite rocks. Sandlake and Adirondack Mountains.

EPHROMA LÆVIGATUM var. PAPYRACEUM, *Schaer.*

Trees in swamps. Near Jordanville, Herkimer county.

OLORINA SACCATA, *Ach.*

Limestone rocks among mosses. Helderberg Mountains.

ELTIGERA APHTHOSA, *Hoffm.*

Shaded mossy banks, ground and old logs in woods. Extremely common, and easily known by the wart like spots on the thallus.

ELTIGERA CANINA, *Hoffm.*

Ground, rocks and old logs in woods. Very common. A small form occurs on the dry, sandy barrens between Albany and Schenectady.

ELTIGERA POLYDACTYLA, *Hoffm.*

Rocks and old logs in woods, especially in mountainous districts. Not rare.

ELTIGERA HORIZONTALIS, *Hoffm.*

Rocks and decaying wood in hilly or mountainous districts. Sandlake, Helderberg and Catskill Mountains.

A large form with crisped margins and under surface uniformly dark brown, except toward the margin, which is whitish, occurs in mountain swamps. Summit Lake.

ICTA PULMONARIA, *Ach.*

Trunks of deciduous trees and on rocks. Fertile specimens have been seen by me only on trees in the woods of the Catskill and the Adirondack Mountains. In the former locality specimens were found with a curiously morbid state of the apothecia. These were scattered abundantly over the upper surface of the thallus and sparingly over the under surface, and had a black disk.

The *Lungwort lichen* once was held in considerable repute as a remedy in pulmonary complaints, and is used to some extent at the present time. It is also said to have been used as food.

ICTA GLOMERULIFERA, *Delise.*

Trunks of deciduous trees, sometimes on rocks. Very common in woods, and fruits abundantly.

ICTA QUERCIZANS, *Ach.*

Granite rocks. Sandlake. Sterile.

STICTA SYLVATICA, *Ach.*

Red sandstone rocks among mosses. Catskill Mountains. Steril
An extremely rare species.

PARMELIA PERLATA, *Ach.*

Trunks of trees and granite rocks. Common.

PARMELIA PERLATA var. OLIVETORUM, *Ach.*

Exposed granite rocks. Sterile.

PARMELIA CRINITA, *Ach.*

Trees. Sandlake. Sterile.

PARMELIA TILIACEA, *Ach.*

Trunks of trees, rarely on old fences. Common.

PARMELIA SAXATILIS, *Ach.*

Trees and old fences. Common.

PARMELIA PHYSODES var. ENTEROMORPHA, *Tuck.*

Trunks of trees in mountain woods.

PARMELIA PERTUSA, *Schaer.*

Trees. Sandlake. Sterile.

PARMELIA OLIVACEA, *Ach.*

Trunks of trees. Common.

PARMELIA STYGIA, *Ach.*

Granite rocks. Top of Mount Whiteface.

PARMELIA CAPERATA, *Ach.*

Trunks of trees. Common, but sterile.

PARMELIA CONSPERSA, *Ach.*

Rocks and boulders. Common everywhere, and fruits abun
antly.

PARMELIA BORRERI, *Turn.* Fort Edward, Howe.

THELOSCHISTES PARIETINUS, *Norm.*

Trunks of willow and ailanthus trees, also on old fences. Gree
port, L. I.

THELOSCHISTES PARIETINUS var. POLYCARPUS, *Fr.*

Trunks and branches of trees in exposed places. Often ass
ciated with *Physcia stellaris* on apple and willow trees. Commo

ELOSCHISTES CHRYSOPHTHALMUS, *Th. Fr.*
Trunks of trees. Greenport.

YSCIA STELLARIS, *Wallr.*
Trunks and branches of trees, rocks, stone walls, etc. Very common and variable.

YSCIA STELLARIS var. TRIBRACIA, *Fr.*
Trunks of juniper, also on stones. Not rare.

YSCIA AQUILA var. DETONSA, *Tuck.*
Mossy rocks and about the base of trees. Common.

YSCIA PULVERULENTA, *Fr.*
Rocks. Catskill Mountains. Sterile.

YSCIA SPECIOSA, *Ach.*
Trunks of trees. Jordanville.

YSCIA SPECIOSA var. LEUCOMELA, *Eschw.*
Trees, mostly in swamps and mountain woods. Sterile.

YSCIA CÆSIA var. ANGUSTIOR, *Fr.*
Rocks. Catskill Mountains.

YSCIA OBSCURA, *Nyl.*
Trunks of trees in woods. Sandlake.

YSCIA OBSCURA var. ERYTHROCORDIA, *Tuck.*
Rocks. Catskill Mountains.

XINE COCOES var. SOREDIATA, *Tuck.*
Rocks and trunks of trees. Sandlake and Adirondack Mountains.

NNARIA LANUGINOSA, *Ach.*
Rocks. Common on mountains and rocky precipices. Without apothecia, and frequently a mere greyish pulverulent mass.

NNARIA MICROPHYLLA, *Mass.*
Rocks. Bethlehem, Albany county.

ACODIUM AURANTIACUM, *Lightf.*
Old fences. Bethlehem.

PLACODIUM AURANTIACUM var. FLAVOVIRESCENS, *Fr.*
Rocks. Troy.

PLACODIUM CINNABARINUM, *Anz.*
Fort Edward. Howe.

PLACODIUM RUPESTRE, *Tuck.*
Rocks. Helderberg Mountains.

LECANORA PALLESCENS, *Schær.*
Trunks of trees. Common.

LECANORA PALLIDA, *Schær.*
Trunks of trees. Not rare.

LECANORA TARTAREA, *Ach.*
Rocks and trunks of trees. Common in hilly and mountain districts. The "*Cudbear*" of commerce, so freely used for col ing purposes.

LECANORA TARTAREA var. FRIGIDA, *Ach.*
Incrusting mosses. Top of Mount McIntyre.

LECANORA SUBFUSCA, *Ach.*
Trunks of trees in woods. Very common and quite variable appearance.

LECANORA VARIA, *Ach.*
Trees and old fences. Common.

LECANORA ELATINA var. OCHROPHÆA, *Tuck.*
Trunks of balsam firs in mountain woods. Mt. Whiteface.

LECANORA MURALIS, *Schær.* (*L. saxicola, of authors.*)
Rocks. Catskill Mountains.

LECANORA CINEREA, *Fr.*
Rocks. At a little distance this lichen causes the surface of rock, on which it grows plentifully, to appear as if bruised or dented by frequent blows of a large hammer.
Specimens from the red sandstone of the Catskill Mounta have to some extent the color of those rocks.

LECANORA ATRA, *Ach.*
Granite rocks. Poestenkill, Rensselaer county.

EOLARIA SCRUPOSA, *Ach.*
Rocks. Common.

LECTA LUTEA, *Tuck.*
Trees. Jordanville.

DEA CONTIGUA, *Fr.*
Rocks. Common.

DEA CONTIGUA var. ALBO-CŒRULESCENS, *Nyl.*
Rocks. Bethlehem. Less common.

DEA ENTEROLEUCA, *Fr.*
Trunks of trees. Catskill Mountains.

DEA SANGUINARIA, *Ach.*
Balsam firs. Mt. Whiteface.

LLIA PARASEMA, *Kœrb.*
Trunks of trees in woods. Very common.

LLIA LACTEA, *Kœrb.*
Rocks. Bethlehem.

LLIA PETRÆA, *Tuck.*
Rocks. With the preceding and apparently more common.

LLIA MYRIOCARPA, *Tuck.*
Board fences. Bethlehem.

ORA ATROPURPUREA, *Tuck.*
Trunks of trees in mountain woods. Not rare.

ORA RUFO-NIGRA, *Tuck.*
Rocks. Bethlehem and Catskill Mountains.

ORA SANGUINEO-ATRA, *Fr.*
Ground and mosses in mountainous districts. Helderberg
ountains.

ORA CHLORANTHA, *Tuck.*
Trunks of trees. Catskill Mountains.

ORA VIRIDESCENS, *Fr.*
Rotten wood and ground. Not rare.

BIATORA VERNALIS, *Fr.*
Trunks of trees and incrusting mosses. Catskill Mountains North Elba.

BIATORA RUBELLA, *Tuck.*
Trees. Fort Edward. Howe.

BÆOMYCES ÆRUGINOSUS, *DC.* (*Biatora icmadophila*, Auct.)
Rotten wood and earth in woods. Near Summit Lake, Ots county.

BÆOMYCES ERICETORUM, *DC.*
Ground in woods. Sandlake.

PILOPHORON FIBULA, *Tuck.*
Rocks. North Elba.

STEREOCAULON PASCHALE, *Ach.*
Rocks on mountains. Catskill and Adirondack Mountains.

STEREOCAULON TOMENTOSUM, *Fr.*
Rocks and thin soil in rocky places. Adirondack Mountains

CLADONIA CÆSPITICIA, *Fl.*
Rocks. North Greenbush.

CLADONIA PYXIDATA, *Fr.*
Rocky ground. Very common.

CLADONIA PYXIDATA var. SYMPHICARPA, *Fr.*
Catskill Mountains.

CLADONIA GRACILIS, *Fr.*
Rocky ground. Extremely common and variable.

CLADONIA GRACILIS var. HYBRIDA, *Fr.*
Rocks and old logs. Catskill and Helderberg Mountains.

CLADONIA GRACILIS var. ELONGATA, *Fr.*
Ground. High peaks of the Adirondack Mountains.

CLADONIA GRACILIS var. TAURICA, *Auct.*
Summit of Mount Whiteface.

CLADONIA DEGENERANS var. CARIOSA, *Fr.*
Dry sandy soil, near West Albany.

DONIA FIMBRIATA, *Fr.*
Rocky soil. Saranac Lake.

DONIA FIMBRIATA var. ADSPERSA, *Tuck.*
Ground. West Albany and Helderberg Mountains.

DONIA SQUAMOSA, *Hoffm.*
Rocky, mossy ground. Very common.

DONIA SQUAMOSA var. DELICATA, *Fr.*
Rotten logs. Sandlake.

DONIA FURCATA, *Fl.*
Rocky ground. Common and variable.

DONIA FURCATA var. RACEMOSA, *Fl.*
Ground and old logs in woods.

DONIA FURCATA var. SUBULATA, *Fl.*
Rocky ground. Catskill Mountains.

DONIA RANGIFERINA, *Hoffm.*
Ground and thin soil covering rocks. Very common.

DONIA RANGIFERINA var. SYLVATICA, *Fl.*
With the typical form.

DONIA RANGIFERINA var. ALPESTRIS, *Fl.*
Ground. Bethlehem and Adirondack Mountains.
The "*Reindeer moss*" is one of the most useful of lichens, and as long been famous as the food of the animal whose name it ears.

DONIA UNCIALIS var. TURGESCENS, *Fr.*
Ground. Top of Mount Whiteface.

DONIA MITRULA, *Tuck.*
Ground. Near Greenwood Cemetery, L. I.

DONIA CORNUCOPIOIDES, *Fr.*
Rocky soil in exposed places. Adirondack and Catskill Mountains.

DONIA CRISTATELLA, *Tuck.*
Ground, rotten logs and stumps. Common in hilly and mountainous districts.

UMBILICARIA PUSTULATA var. PAPULOSA, *Tuck.*
Rocks. Not rare on mountains.

UMBILICARIA PROBOSCIDEA, *DC.*
Rocks. Mount Whiteface.

UMBILICARIA MUHLENBERGII, *Tuck.*
Rocks. Sandlake and Catskill Mountains.

UMBILICARIA HIRSUTA, *Ach.*
Rocks. Catskill Mountains.

UMBILICARIA DILLENII, *Tuck.*
Rocks in mountainous districts. Common but sterile.

GRAPHIS SCRIPTA, *Ach.*
Bark of trees. Very common and variable.

OPEGRAPHA VARIA, *Pers.*
Trees. Fort Edward. Howe.

CONIOCYBE PALLIDA, *Fr.*
Bark of oak trees. Fort Edward. Howe. Very rare. To I
Howe belongs the discovery of this species in our State.

ENDOCARPON MINIATUM var. MUHLENBERGII, *Nyl.*
Fort Edward. Howe.

PERTUSARIA PERTUSA, *Ach.*
Trees. Common.

PERTUSARIA PERTUSA var. AREOLATA, *Fr.*
Rocks, especially on mountains.

PERTUSARIA VELATA, *Nyl.*
Trees: sometimes on rocks. Common.

PERTUSARIA VELATA var. MULTIPUNCTA, *Nyl.*
Trees in woods.

PERTUSARIA WULFENII, *Dec.*
Trees. Catskill Mountains.

PERTUSARIA GLOBULARIS, *Ach.*
Incrusting twigs and mosses. Catskill Mountains.

NOTREMA URCEOLATUM, *Tuck.*
Trees in woods. Common.

RENULA NITIDA, *Ach.*
Trees in woods. Common.

TPETHELIUM VIRENS, *Tuck.*
Bark of trees. Catskill Mountains.

LEMA FLACCIDUM, *Ach.*
Rocks. Sandlake.

LLEMA NIGRESCENS, *Ach.*
Trees. Catskill and Adirondack Mountains.

LLEMA RYSSOLEUM, *Tuck.*
Rocks. Catskill Mountains.

TOGIUM TREMELLOIDES, *Fr.*
Rocks. Catskill Mountains.

TOGIUM LACERUM. *Fr.*
Mossy rocks. Common.

TOGIUM CHLOROMELUM, *Nyl.*
Rocks and trunks of trees. Catskill Mountains.

TOGIUM SATURNINUM, *Nyl.*
Rocks and trunks of trees. Common but sterile.

ALGÆ.

GASSUM VULGARE, *Ag.*
Pebbles and small stones near low-water mark. Peconic Bay, at reenport.

GASSUM MONTAGNEI, *Bail.*
With the preceding. Also near Orient.

GASSUM BACCIFERUM, *Ag.*
Glencove, L. I. G. B. Brainerd. This is the famous "Gulf eed" of the ocean, and its occurrence in our waters is interesting.

US NODOSUS, *L.*
Rocks between tide marks. Found on almost all the rocky ores of Long Island and Staten Island; especially abundant near ollege Point.

FUCUS VESICULOSUS, *L.*

Same range as the preceding species, and quite as plentif
These two species may be found on almost any part of our coa
growing freely on the rocky shores and cast up by the tide on t
sandy ones. The inhabitants of some parts of Long Island u
these plants, with Zostera and other rejectamenta of the sea, as f
tilizers of the soil.

FUCUS CERANOIDES, *L.*

Bay Ridge, L. Is. Brainerd. The specimens are sterile, and t
species must remain, to some extent, in doubt.

FUCUS SCORPIOIDES, *Fl. Dan.*

Left by the tide. Fort Hamilton and Canarsie Bay.

CLADOSTEPHUS SPONGIOSUS, *Ag.*

Floating. Orient Point. Brainerd. October.

ASPEROCOCCUS ECHINATUS, *Grev.*

Stones between tide marks. Flushing. Brainerd. May.

DICTYOSIPHON FŒNICULACEUS, *Grev.*

Canarsie Bay. Brainerd. June.

STILOPHORA RHIZODES, *J. Ag.*

Thrown up by waves and tide. Greenport and Orient Poi
September.

DESMARESTIA VIRIDIS, *Lamour.*

Low tide. College Point. June. This species has a pecul
property, causing the rapid decomposition of red algæ that may
placed in a vessel with it.

CHORDARIA FLAGELLIFORMIS, *Ag.*

Thrown up by the tide. Orient Point. September.

CHORDARIA DIVARICATA, *Ag.*

On *Leathesia tuberiformis* and other seaweeds. Coney Isla
June.

MESOGLOIA VERMICULARIS, *Ag.?*

Ground between tide marks. Canarsie Bay. Brainerd. J
Though apparently this species, a cross section of the fr
reveals the structure of Chordaria.

CHORDA FILUM, *Stack.*

Rocks near low-water mark and extending into deep wa
Orient Point. September.

LTHESIA TUBERIFORMIS, *Gray.*

Thrown up by the tide. Coney Island and Canarsie Bay. June.

OCARPUS VIRIDIS, *Harv.*

Coney Island and Canarsie Bay. June.

OCARPUS LITTORALIS, *Lyngb.*

Fort Hamilton and Canarsie Bay. June.

OCARPUS DURKEEI, *Harv.*

Peconic Bay. Greenport. Mrs. M. A. Bush. September.

INARIA FASCIA, *Ag.*

Rocks, woodwork of docks, etc. Common.

INARIA SACCHARINA, *Lamour.*

Thrown up from deep water in great abundance at Orient Point. eptember. It varies exceedingly in size, some specimens having een reported to me as being thirty feet in length. A singular rm was picked up at College Point in June. The frond, which is bout three feet long and three inches broad, divides toward the pex into two equal branches, each about eight inches long and one nd a half inches broad, slightly incurved and truncate at the pex.

NCTARIA LATIFOLIA, *Grev.*

Floating in Canarsie Bay. June.

NCTARIA TENUISSIMA, *Grev.*

On wild grass, etc. Coney Island. Brainerd. April.

NDRIA DASYPHYLLA, *Ag.*

Floating. Greenport. September.

NDRIA BAILEYANA, *Mont.*

Stones near low-water mark. Fort Hamilton. September.

NDRIA TENUISSIMA, *Ag.*

Floating. College Point. September. Fort Hamilton. F. owry.

LIDIUM CORNEUM, *Lamour.*

Rocks. Fort Hamilton. September.

YSIPHONIA FORMOSA, *Suhr.*

Floating. Flushing, Bay Ridge and Red Hook. Brainerd. Feb- uary, April and May.

POLYSIPHONIA SUBTILISSIMA, *Mont.*

On Zostera, old shells, etc. Greenport. September.

POLYSIPHONIA OLNEYI, *Harv.*

Floating. Bay Ridge. September. Greenport. Mrs. Bush

POLYSIPHONIA HARVEYI, *Bail.*

Floating. Abundant at Greenport. September.

POLYSIPHONIA FIBRILLOSA, *Grev.*

Greenport. Mrs. Bush. September.

POLYSIPHONIA VARIEGATA, *Ag.*

Thrown up by the tide in many places. Bay Ridge, Asto College Point, Greenport, etc. Very common and variable. S tember.

POLYSIPHONIA NIGRESCENS, *Grev*

Rockaway Inlet and New York Harbor. Brainerd. Coll Point. June. A variable species.

POLYSIPHONIA FASTIGIATA, *Grev.*

Floating. Bompres Hook. Brainerd. June.

BOTRYCHIA RIVULARIS, *Harv.*

Rocks near high-water mark. College Point and Astoria. S tember.

CYSTOCLONIUM PURPURASCENS, *Kutz.*

Floating. Flushing. Brainerd. July.

DASYA ELEGANS, *Ag.*

Stones, woodwork, etc. Fort Hamilton, Orient. Peconic B Mrs. Bush. New York Bay, Brainerd. September. A most be tiful but variable species.

CHAMPIA PARVULA, *Harv.*

Floating and thrown up by the tide in many places. Co Island, Canarsie Bay, Peconic Bay, etc. September.

CORALLINA OFFICINALIS, *L.*

Floating. Orient. September.

GRINNELLIA AMERICANA, *Harv.* (*Delesseria americana*, Ag.)

Floating. Bay Ridge, Fort Hamilton, College Point, etc. S tember

LESSERIA SINUOSA, *Lamour.*

Thrown up by the tide. Orient. September.

LESSERIA LEPRIEUREI, *Mont.*

McComb's Dam, Harlem River. Brainerd. September.

ACILARIA MULTIPARTITA, *J. Ag.*

Thrown up by the tide. Coney Island, Fort Hamilton, College Point, etc. September. An abundant and variable species. Edible.

IERIA CHORDALIS, *J. Ag.*

Thrown up on all the shores of Long Island. Dredged in Canarsie Bay (in water four to six feet deep), where it grows in great abundance. September.

YIDES ROTUNDUS, *Grev.*

Thrown up by the tide. Orient. September.

ODYMENIA PALMATA, *Grev.*

Orient. September.

YLLOPHORA BRODIÆI, *J. Ag.*

Orient. September.

HFELTIA PLICATA, *Fr.*

Among rejectamenta. Orient. September.

ONDRUS CRISPUS, *Lyngb.*

Orient. September.

This is the "*Irish moss*" of the shops. It is used by the inhabitants of Orient with no expense or trouble save that of collecting and preparing.

YLOCLADIA BAILEYANA, *Harv.*

On Zostera, etc. Greenport. September. Glencove. Brainerd.

RIDIA FILAMENTOSA, *Harv.*

Zostera and shells. Greenport. September. Glencove. Brainerd. August.

ODOMELA ROCHEI, *Harv.*

Floating. College Point. Brainerd. April.

AMIUM RUBRUM, *Ag.*

Attached to Fuci. Common and extremely variable. Bay Ridge, Astoria, Orient, &c.

CERAMIUM DIAPHANUM, *Roth.*

Small stones and seaweeds near low-water mark. Fort Ha
ton, Bay Ridge, Canarsie Bay. Common. September.

CERAMIUM FASTIGIATUM, *Harv.*

Floating. Astoria. September.

CERAMIUM ARACHNOIDEUM, *Ag.*

Floating. Greenport. September.

GRIFFITHSIA CORALLINA var. TENUIS, *Harv.*

Greenport. Mrs. Bush. Glencove. Brainerd. August.

CALLITHAMNION BAILEYI, *Harv.*

On seaweeds. Orient. September.

CALLITHAMNION BYSSOIDEUM, *Arn.*

Floating. Bay Ridge and Astoria. Attached to wood w
Long dock, Brooklyn. September.

CALLITHAMNION CORYMBOSUM, *Ag.*

Floating. Flushing. Brainerd. August. Peconic Bay. M
Bush.

CALLITHAMNION AMERICANUM, *Harv.*

Floating. College Point. Brainerd. April.

CALLITHAMNION SEIROSPERMUM, *Griff.* (*Seirospora griffithsiana*, H

Peconic Bay, Mrs. Bush.

BRYOPSIS PLUMOSA, *Lamour.*

Floating. Astoria. September.

PORPHYRA VULGARIS, *Ag.*

Under side of rocks. College Point and Bay Ridge. Sept
ber. Floating at Fort Hamilton. June. Peconic Bay. M
Bush. Common and variable.

ULVA LATISSIMA, *Lin.*

Rocks. Extremely abundant on all our rocky coasts.

ULVA LINZA, *L.*

Floating. Coney Island.

ENTEROMORPHA INTESTINALIS, *Link.*

Rocks. Fort Hamilton.

ERÓMORPHA COMPRESSA, *Grev.*

Rocks. Bay Ridge and Fort Hamilton. Floating at Coney sland. Common.

ERÓMORPHA CLATHRATA, *Grev.*

Muddy or sandy shores. Canarsie Bay and Coney Island.

MOTRICHUM YOUNGANUM, *Dillw.*

Rocks. Fort Hamilton. June.

ETOMORPHA TORTUOSA, *Dillw.*

Rocks. Bay Ridge. September.

ETOMORPHA LINUM, *Kutz.*

Dredged in water four to six feet deep. Canarsie Bay. Septemer. Mr. Brainerd has found fronds of this plant in the same ocality that were eleven feet in length, a fact truly remarkable, hen we consider that the diameter of the frond is less than one ne.

DOPHORA GLOMERATA, *L.*

Stones and rocks in rapid fresh water streams. A pretty and pparently common species. Buffalo. G. W. Clinton. North reenbush, Helderberg Mountains, Van Hornesville, etc.

DOPHORA FRACTA, *Fl. Dan.*

In quiet water, either fresh, brackish or salt. Albany, Canarsie ay, Flushing and Greenport.

DOPHORA REFRACTA, *Roth.*

Coney Island and Canarsie Bay. A well-marked, beautiful pecies.

DOPHORA ARCTA, *Dillw.*

New York Harbor. Brainerd.

DOPHORA GLAUCESCENS, *Griff.*

Coney Island.

ZOCLONIUM RIPARIUM, *Roth.*

Wood-work of docks. Greenport.

ETOPHORA PISIFORMIS, *Ag.*

Attached to sticks and grass in fresh water. Greenwood. Brainrd. Guilderland, Albany county; also near Canarsie. Probably ommon in the State. June.

CHÆTOPHORA ENDIVIÆFOLIA, *Ag.*

On sticks in fresh water. Litchfield, Herkimer county. Ju

DRAPARNALDIA GLOMERATA, *Ag.*

Attached to sticks and grass in fresh water streams. Guil land, Sandlake, Canarsie, Staten Island. June, July.

BATRACHOSPERMUM MONILIFORME, *Roth.*

In still or slow-flowing fresh water. Fort Edward. Howe. Sa lake. July.

LEMANEA FLUVIATILIS, *Ag.*

On rocks in the Cauterskill, Catskill Mountains. Collected the writer in 1864. This plant has not, to my knowledge, b found elsewhere in this country. It is not a rare species in Eur

NOSTOC COMMUNE, *Vauch.*

Ground. Appearing in wet weather, especially in spring autumn. Troy. Howe. Bethlehem. Probably common. allied species has been used as diet for invalids, and this specie recommended by Harvey for trial for the same purpose.

FUNGI.

AGARICUS MAPPA, *Batsch.*

Woods and fields. Common. Sept., Oct.

AGARICUS PROCERUS, *Scop.*

Woods and fields. Fort Edward. Howe. Aug., Sept. edible species.

AGARICUS RACHODES, *Vitt.*

Rotting stumps. Fort Edward. Howe. Roadsides. Wyna kill, Rens. county. Aug. A pretty species. Edible.

AGARICUS CRISTATUS, *Bolt.*

Woods. Fort Edward. Howe.

AGARICUS MELLEUS, *Vahl.*

Woods and open fields, on the ground and about the bas stumps. Sept., Oct. Edible.

Writers differ in their estimate of the qualities of this spec some pronouncing it most delicious food, others calling it infer

AGARICUS PERSONATUS, *Fr.*

About logs and stumps. Fort Edward. Howe. Autu Edible.

RICUS NEBULARIS, *Batsch.*

Woods. Fort Edward. Howe. North Greenbush. Edible.

RICUS LACCATUS, *Scop.*

Damp thickets and woods. Poestenkill. Howe. Bethlehem. ımmer and Autumn.

RICUS RADICATUS, *Bull.*

Woods. Summer and autumn. Common. Edible.
This species is remarkable for the long, root-like extension of the pe, which penetrates into the earth about as far as the proper pe extends upwards in the air.

RICUS VELUTIPES, *Curt.*

Decayed wood. Fort Edward. Howe. Autumn and Spring.

RICUS OCHROPURPUREUS, *Berk.*

Woods. Fort Edward. Howe. Bethlehem and North Elba.

RICUS GALERICULATUS, *Scop.*

Humid earth. Fort Edward. Howe. Autumn.

RICUS EPIPTERYGIUS, *Scop.*

Old wood. Fort Edward. Howe. Autumn.

RICUS CAMPANELLA, *Batsch.*

Rotting wood. Fort Edward. Howe.

RICUS OSTREATUS, *Jacq.*

Old logs and dead trees. Fort Edward. Howe. Abundant on e Catskill Mountains. Autumn. Edible.
A thick, firm species, quite variable in color but easily recognized ter it has been once seen. Said to be excellent food.

RICUS SALIGNUS, *Pers.*

Dead trees, old logs and stumps. Common. Summer and aut- ın. Edible.

RICUS PETALOIDES, *Bull.*

Old logs and stumps, especially in damp, shaded places. Fort lward. Howe. Catskill and Adirondack Mountains. Summer d autumn.

RICUS ATROCŒRULEUS, *Fr.*

Bark of old trunks. Fort Edward. Howe. Underside of fence ls. Helderberg Mountains. Summer and autumn.

AGARICUS APPLICATUS, *Batsch.*

Old bark in woods. Fort Edward. Howe.

AGARICUS SEMI-CAPTUS, *B. & C.*

Subterranean sticks. Fort Edward. Howe. A pretty li
species, but rare.

AGARICUS CURTISII, *Berk.*

Old boards and saw-dust. Fort Edward. Howe. Autumn

AGARICUS PRUNULUS, *Scop.*

Woods. Fort Edward. Howe. Bethlehem. Autumn. Edi

AGARICUS POLYCHROUS, *Berk.*

Decaying wood, etc. Fort Edward. Howe. Bethlehem
Helderberg Mountains. Autumn.

AGARICUS SEMIORBICULARIS, *Bull.*

Fields and woods. Fort Edward. Howe. Summer.

AGARICUS CAMPESTRIS, *L.*

Fields. Fort Edward. Howe. Albany. Summer and autu
Edible. This species is the one usually cultivated, and, theref
it is probably used to a greater extent than any other. It sh
not, however, be inferred from this that it is superior to all ot
for edible purposes. Several are said to surpass it in flavor,
even the wild ones of this same species, freshly gathered from
fields, are considered by many, superior to the cultivated o
The young plants are called "*Button mushrooms.*"

The species is quite variable, and, in some of its fo
approaches the following one quite closely. It does not ap
to be abundant with us, though more plentiful some seasons t
it is others.

AGARICUS ARVENSIS, *Schæff.*

Fields. Fort Edward. Howe. Summer and autumn. Edi

AGARICUS CRETACEUS, *Fr.*

Fields. Fort Edward. Howe. September. Edible.

AGARICUS SUBLATERITIUS, *Schæff.*

Woods. Fort Edward. Howe. Summer and autumn.

AGARICUS EPIXANTHUS, *Paul.*

Woods. Fort Edward. Howe. Helderberg Mountains. S
mer and autumn.

ARICUS ORCELLA, *Bull.*
Woods and base of stumps in open fields. Fort Edward. Howe. September. Edible.

ARICUS SUBINVOLUTUS, *Batsch.*
Woods. Poestenkill. Howe. Summer.

ARICUS CLYPEATUS, *L.*
Woods. Fort Edward. Howe. Summer and autumn.

ARICUS SPHAGNORUM, *Pers.*
Among Sphagnum in marshes. Sandlake.

PRINUS COMATUS, *Fr.*
Rich ground, roadsides and barn yards. Bethlehem. September. Edible.

PRINUS ATRAMENTARIUS, *Bull.*
Manured grounds. Sandlake. Summer. Edible.
This and other allied species, by the deliquescence of the lamellæ, furnish a fluid which may be used as ink.

PRINUS DOMESTICUS, *Pers.*
Streets and yards of Albany. Spring and summer.

PRINUS PLICATILIS, *Curt.*
Manure. Fort Edward. Howe. Sandlake. Summer.

XILLUS ATRO-TOMENTOSUS, *Fr.*
Rotten logs in woods. Moreau, Saratoga county. Howe. July, October.

GROPHORUS CINNABARINUS, *Fr.*
Woods. Poestenkill. Howe. Sandlake. July, September.

GROPHORUS CONICUS, *Fr.*
Swampy or shaded places. Poestenkill. Howe. Bethlehem and North Elba. Summer. A pretty species, but it turns black in drying.

GROPHORUS CERACEUS, *Fr.*
Humid ground. Poestenkill. Howe. August.

CTARIUS TORMINOSUS, *Fr.*
Woods. Poestenkill. Howe. July, September.

LACTARIUS PIPERATUS, *Fr.*
Woods. Poestenkill. Howe. North Elba. July, Septeml
Edible.

LACTARIUS INDIGO, *Fr.*
Woods. Poestenkill. Howe. Bethlehem. August, Octol

LACTARIUS ANGUSTISSIMUS, *Lasch.*
Woods. Poestenkill. Howe. Sandlake. July, Septeml
Edible.

LACTARIUS VOLEMUS.
Woods and open places. Sandlake. August. Edible.

LACTARIUS SUBTOMENTOSUS, *B. & R.*
Wet swampy woods. Poestenkill. Howe. Summer.

LACTARIUS FULIGINOSUS, *Fr.* Woods. Poestenkill. Howe. Sumn

RUSSULA EMETICA, *Fr.*
Woods. Fort Edward. Howe. Bethlehem and North El
Summer. A beautiful but deleterious fungus.

RUSSULA ALUTACEA, *Fr.*
Woods. Poestenkill. Howe. Summer. Edible.

CANTHARELLUS TUBÆFORMIS, *Bull.*
Ground in woods. Fort Edward. Howe. Helderberg Mo
tains. September.

CANTHARELLUS CRISPUS, *Fr.*
Old logs and sticks. Fort Edward. Howe. Catskill Mo
tains. Summer and autumn.

MARASMIUS OREADES, *Fr.*
Hedges, orchards, etc. Fort Edward. Howe. August–Octo
Edible.

MARASMIUS PLANCUS, *Fr.*
Dead leaves and sticks in woods. Common. Summer.

MARASMIUS ROTULA, *Fr.*
Sticks and leaves in woods. Common. Summer.

LENTINUS LECONTEI, *Fr.*
Old logs and stumps, mostly in open places. Common.

us stypticus, *Fr.*
Dead wood. Common.

us dorsalis, *Fr.*
Old logs. Catskill Mountains.

zophyllum commune, *Fr.*
Dead wood. Very common.

zites betulina, *Fr.*
Old stumps and logs. Common.

zites sepiaria, *Fr.*
Logs and wooden fences. Fort Edward. Howe. Sandlake and atskill Mountains.

zites cratægi, *Berk.*
Dead trunks. Fort Edward. Howe.

zites bicolor, *Fr.*
Old stumps. Fort Edward. Howe.

tus elegans, *Fr.*
Woods. Near Port Kent and Bethlehem. August, September. dible.

tus granulatus, *L.*
Ground both open and shaded. Fort Edward. Howe. August. dible.

tus bovinus, *L.*
In or near pine woods. Center station, between Albany and henectady; also Sandlake. Summer. A large species. Edible.

tus scaber, *Bull.*
Ground in open woods. Sandlake and North Elba. Summer. dible.

tus felleus, *Bull.*
Ground in both open and shaded places. Fort Edward. Howe. ugust.

porus ovinus, *Schæff.*
Ground in pine woods. Bethlehem. September. Edible.

POLYPORUS BRUMALIS, *Fr.*

Dead wood. Fort Edward. Howe.

POLYPORUS TOMENTOSUS, *Fr.*

Low ground in woods, North Elba, where it is quite abund
but I have not seen it elsewhere.

POLYPORUS PERENNIS, *Fr.*

Shaded ground and banks by roadsides in hilly districts. C
mon.

POLYPORUS BOUCHEANUS, *Fr.*

Dead sticks and branches lying on or near the ground. C
mon.

POLYPORUS LURIDUS, *B. & C.*

Sticks and old logs. Fort Edward. Howe. Catskill M
tains.

POLYPORUS ELEGANS, *Fr.*

Dead wood and logs in woods. Fort Edward. Howe. N
Elba.

POLYPORUS LUCIDUS, *Fr.*

Old logs, stumps and roots. Common.

POLYPORUS GIGANTEUS, *Fr.*

Base of hemlocks. Fort Edward. Howe. September. Ed

POLYPORUS SULFUREUS, *Fr.*

Old logs in woods. Fort Edward. Howe. North Elba.
ble. Sometimes attains a very large size, and is also conspic
by reason of its color, the upper surface being bright orange
lower, clear sulphur yellow.

POLYPORUS LACTEUS, *Fr.*

Old stumps. Fort Edward. Howe. Catskill Mountains.

POLYPORUS GILVUS, *Fr.*

Trunks of trees. Sandlake.

POLYPORUS ADUSTUS, *Fr.*

Old stumps and branches. Fort Edward. Howe. North

POLYPORUS LABYRINTHICUS, *Fr.*

Dead pine trunks. Troy. Howe.

Lyporus cerifluus, *B. & C.*
Base of trees and old logs in woods. Adirondack Mountains.

Lyporus resinosus, *Fr.*
Stumps and trunks of trees. Troy. Howe. Helderberg Mountains.

Lyporus applanatus, *Fr.*
Old logs and trees, mostly in woods. Common.

Lyporus fomentarius, *Fr.*
Stumps, trunks and old logs. Common.

Lyporus igniarius, *Fr.*
Trunks of trees. Fort Edward. Howe. North Elba.

Lyporus scutellatus, *Schw.*
Dead bark. Fort Edward. Howe. Dead alders. North Elba.

Lyporus subfuscus, *Fr.*
Trunks and logs. Fort Edward. Howe.

Lyporus carolinensis, *B. & C.*
Stumps in woods. Fort Edward. Howe.

Lyporus carneus, *Nees.*
Old logs in woods and open places. Common. Dr. Howe finds resupinate form.

Lyporus cinnabarinus, *Fr.*
Old logs, etc. Common. A highly colored and somewhat variable species.

Lyporus radiatus, *Fr.*
Trunks and branches of trees. Fort Edward. Howe.

Lyporus biformis, *Kl.*
Old logs. Catskill Mountains.

Lyporus hirsutus, *Fr.*
Trees, stumps, etc. Very common.

Lyporus hirsutulus, *Schw.*
Dead branches and sticks. Catskill Mountains.

POLYPORUS LACERATUS, *Berk.*
Old logs and trees. Very common.

POLYPORUS VERSICOLOR, *Fr.*
Old logs, sticks and posts. Everywhere.

POLYPORUS ABIETINUS, *Fr.*
Bark of pines and hemlocks. Moreau. Howe. Catskill Mo tains.

POLYPORUS SULLIVANTII, *Mont.*
Branches of trees and ends of cut wood. Moreau. Howe.

POLYPORUS VIRGINEUS, *Schw.*
Branches of trees. Moreau. Howe.

POLYPORUS OCCIDENTALIS, *Kl.* Old logs, Sandlake.

POLYPORUS MEDULLA-PANIS, *Fr.*
Old stumps, logs and fences. Fort Edward. Howe. V Hornesville.

POLYPORUS VAPORARIUS, *Fr.*
Dead trees. Moreau. Howe.

DÆDALEA CINEREA, *Fr.*
Old logs. Fort Edward. Howe. Catskill Mountains..

DÆDALEA CONFRAGOSA, *Bolt.*
Old logs and stumps. Fort Edward. Howe. North Elba.

GLŒOPORUS NIGROPURPURASCENS, *Schw.*
Old logs. Fort Edward. Howe. Catskill Mountains.

MERULIUS TREMELLOSUS, *Schrad.*
Old logs and stumps. Fort Edward. Howe. Catskill Mo tains.

FISTULINA HEPATICA, *Fr.*
Base of chestnut and oak trees. Fort Edward. Howe. Sa lake. Edible. This fungus is pronounced by some writers t an excellent substitute for beef-steak, and the juice to be equa beef gravy. It is stated by M. C. Cooke in his "British Fu that specimens sometimes attain a weight of thirty pounds. at once known by its liver-red color, red juice and yellow u surface. Unfortunately for those who would like to make use for food, it is rare with us.

DNUM REPANDUM, *L.*
Woods. Fort Edward. Howe. Sandlake. Edible.

DNUM SUAVEOLENS, *Scop.*
Ground in woods and along shaded rivulets. Fort Edward. Howe. Sandlake.

DNUM GRAVEOLENS, *Delast.*
Woods. Fort Edward. Howe.

DNUM ADUSTUM, *Schw.*
Base of trees and stumps. Fort Edward. Howe.

DNUM CORALLOIDES, *Scop.*
Old logs in woods. Fort Edward. Howe. Adirondack Mountains. Edible. A very pretty, delicate white fungus.

DNUM ERINACEUS, *Bull.*
Dead trunk of Platanus. Fort Edward. Howe.

DNUM GELATINOSUM, *Scop.*
Rotten wood in woods. Catskill Mountains.

DNUM CIRRHATUM, *Pers.*
Trunks of trees in woods. Adirondack Mountains. Sometimes grows very large—a foot or more in diameter.

ONUM OCHRACEUM, *Pers.*
Sticks and stumps. Fort Edward. Howe.

ONUM HIMANTIA, *Schw.*
Half-buried, dead branches. Fort Edward. Howe.

ONUM MUCIDUM, *Pers.*
Trees and dejected branches. Fort Edward. Howe.

ONUM LÆTICOLOR, *B. & C.*
Dead branches among leaves. Fort Edward. Howe.

EX TULIPIFERÆ, *Schw.*
Dead branches of trees. Fort Edward. Howe. Catskill Mountains.

EX DEFORMIS, *Fr.*
Old stumps and trees. Helderberg Mountains.

IRPEX CINNAMOMEUS, *Fr.*
Dead trees and branches lying on the ground. Common.

CRATERELLUS CORNUCOPIOIDES, *Pers.*
Damp, shaded places in woods and along rivulets. Fort Edwa
Howe. Helderberg and Adirondack Mountains.

THELEPHORA PALLIDA, *Schw.*
Fields and woods. Fort Edward. Howe. Port Kent

THELEPHORA PALMATA, *Fr.*
Sandy bank in woods. Fort Edward. Howe.

THELEPHORA TERRESTRIS, *Ehrh.*
Woods and thickets. Fort Edward. Howe.

STEREUM FASCIATUM, *Fr.*
Dead wood. North Greenbush.

STEREUM STRIATUM, *Fr.*
Trees and branches. Fort Edward. Howe.

STEREUM COMPLICATUM, *Fr.*
Trees, stumps and branches. Common.

STEREUM PURPUREUM, *Pers.*
Trunks and branches. Common.

STEREUM SPADICEUM, *Fr.*
Old stumps and trees. Common.

STEREUM HIRSUTUM, *Fr.*
Trees and branches. Fort Edward. Howe.

STEREUM OCHRACEO-FLAVUM, *Schw.*
Dead trees. Catskill Mountains.

STEREUM BICOLOR, *Fr.*
Old logs. Catskill Mountains.

STEREUM RUBIGINOSUM, *Schrad.*
Trees and branches. Fort Edward. Howe.

STEREUM TABACINUM, *Fr.*
Dead trees and old logs. Catskill Mountains.

REUM IMBRICATULUM, *Schw.*
Trees and branches. Fort Edward. Howe.

REUM FRUSTULOSUM, *Fr.*
Trees and branches. Fort Edward. Howe.

REUM ACERINUM, *Fr.*
Trees and branches. Fort Edward. Howe.

TICIUM OAKESII, *B. & C.*
Bark of hornbeam, oak and ash trees. Fort Edward. Howe. atskill Mountains.

TICIUM CINEREUM, *Fr.*
Bark of trees and branches. Fort Edward. Howe.

HELLA CAPULA, *Fr.*
Stems of herbs. Fort Edward. Howe.

HELLA MUSCICOLA, *Fr.*
Among mosses about the base of trees. Fort Edward. Howe, ne first to detect it in this country.

VARIA BOTRYTIS, *Pers.*
Woods. Poestenkill. Howe. Sandlake. Edible.

VARIA AUREA, *Schæff.*
Woods. Fort Edward. Howe. Edible.

VARIA JUNCEA, *Fr.*
Dead leaves. Fort Edward. Howe, the first to find it in this ountry.

VARIA STRICTA, *Pers.*
Ground and old logs in woods. Fort Edward. Howe. Adiron-ack Mountains.

VARIA INÆQUALIS, *Fr.*
Woods. Poestenkill. Howe. Helderberg Mountains.

THULARIA FLAVIDA, *Pers.*
Woods in hilly and mountainous districts. Common.

ILLARIA MUSCICOLA, *Fr.*
Mosses, most often on *Climacium americanum* and *Hypnum elicatulum.*

TREMELLA AURANTIA, *Schw.*
Old stumps. Sharon Springs.

TREMELLA MESENTERICA, *Retz.* Bark. Fort Edward. Howe. Edi

TREMELLA SARCOIDES, *With.*
Trunks of trees. Fort Edward. Howe.

EXIDIA AURICULA-JUDÆ, *Fr.*
Old logs in low woods. North Elba. A singular, soft, spo
species, sometimes used as a remedy for sore throat.

EXIDIA GLANDULOSA, *Fr.*
Old logs and sticks. Poestenkill. Howe. Guilderland.

EXIDIA TRUNCATA, *Fr.*
Trees and branches. Poestenkill. Howe.

EXIDIA CINNABARINA, *B. & C.*
Dejected branches. Fort Edward. Howe.

DACRYMYCES STILLATUS, *Fr.*
Old pine wood and rails. Fort Edward. Howe.

DACRYMYCES TORTUS, *Fr.*
Pine wood. Fort Edward. Howe.

LYCOPERDON GEMMATUM, *Batsch.*
Ground and old stumps in woods and fields. Common.

LYCOPERDON PYRIFORME, *Schæff.*
Ground, old stumps and logs. Common. I have partake
this species without any unpleasant results, but cannot recomm
it as especially delicious, and forbear to class it among the ed
species.

LYCOPERDON CALVESCENS, *B. & C.*
Ground in open woods. Bethlehem.

LYCOPERDON WRIGHTII, *B. & C.*
Helderberg Mountains.

BOVISTA PLUMBEA, *Pers.*
Fields. West Albany. Edible.

BOVISTA CYATHIFORMIS, *Bosc.*
Fields. Fort Edward. Howe.

ASTER HYGROMETRICUS, *Pers.*
Sandy ground. Fort Edward. Howe. Center Station.

ERODERMA VULGARE, *Fr.*
Ground and old logs. Common.

COGALA EPIDENDRUM, *L.*
Rotten wood. Common.

THALIUM SEPTICUM, *Fr.*
Old logs and stumps. Common.

DERMA GLOBOSUM, *Pers.*
On moss. Sandlake.

DERMA CITRINUM, *Fr.* Moss. Catskill Mountains.

DYMIUM XANTHOPUS, *Fr.* On Sphagnum. Sandlake.

DYMIUM FULVIPES, *Fr.*
On *Hypnum triquetrum*. Fort Edward. Howe, who first detected it in this country.

YSARUM NUTANS, *Pers.*
Old logs and bark of hornbeam. Fort Edward. Howe.

MONITIS FERRUGINEA, *Ehrh.*
Dead and rotten wood. Common.

TYDIUM MICROCARPUM, *Schrad.*
Dead wood. Fort Edward. Howe. Port Kent.

BRARIA PURPUREA, *Schrad.*
Rotten wood. Catskill Mountains. Rare.

BRARIA INTRICATA, *Schrad.*
Rotten wood. Jordanville.

CYRIA CINEREA, *Fl. Dan.*
Rotton wood in woods. Sandlake.

CHIA RUBIFORMIS, *Pers.*
Rotten wood. North Elba.

CHIA CLAVATA, *Pers.*
Rotten wood. Fort Edward. Howe.

TRICHIA TURBINATA, *With.*
Rotten wood. Fort Edward. Howe.

CYATHUS CAMPANULATUS, *Fr.*
Dung in fields. Bethlehem.

CYATHUS CRUCIBULUM, *Pers.*
Sticks and stems of dead herbs. Fort Edward. Howe.

PTYCHOGASTER ALBUS. *Corda.*
In rotten logs. Fort Edward. Howe.

MICROTHYRIUM MICROSCOPICUM, *Desm.*
Dead stems of *Chelone glabra.* Poestenkill. Howe.

SPHÆRONEMA CONSORS, *B. & C.*
Stems of living *Juncus.* Fort Edward. Howe.

DIPLODIA VITICOLA, *Desm.*
Grape vines. Fort Edward. Howe. Albany.

SPHÆROPSIS INSIGNIS, *B. & C.*
Dead acorns. Fort Edward. Howe.

VERMICULARIA LILIACEARUM, *Schw.*
Dead stems of lilies. Poestenkill. Howe.

SEPTORIA HERBARIUM, *B. & C.*
Dead stems of *Leucanthemum vulgare.* Poestenkill. Howe.

STILBOSPORA OVATA, *Pers.*
Bark. Poestenkill. Howe.

STILBOSPORA PYRIFORME, *Hoffm.*
Bark. Poestenkill. Howe.

CYTISPORA RUBESCENS, *Fr.*
Dead bark of mountain ash. Poestenkill. Howe.

CYTISPORA LEUCOSPERMA, *Fr.*
Dead bark. Fort Edward. Howe.

NEMASPORA CROCEA, *Pers.*
Wood and branches of trees. Fort Edward. Howe. Little Fa

MYXOSPORIUM NITIDUM, *B. & C.*
On *Cornus alternifolia.* Fort Edward. Howe. North Gre
bush and Catskill Mountains.

CULA HERBARUM, *Pers.*
Dead herbs. Poestenkill. Howe.

TONEMA SPILOMEUM, *Berk.*
Old rails and boards. Poestenkill. Howe.

EGMA SPECIOSUM, *Fr.*
Cultivated rose bushes. Fort Edward. Howe.

CCINIA ACULEATA, *Schw.*
Living leaves of *Podophyllum peltatum.* Fort Edward. Howe.

CCINIA SOLIDA, *Schw.*
Living leaves of *Anemone pennsylvanica.* Fort Edward. Howe.

CCINIA GRAMINIS, *DC.*
Stems and leaves of grasses. Fort Edward. Howe.

CCINIA WALDSTEINIÆ, *Curt.*
Living leaves of *Waldsteinia fragarioides.* Fort Edward. Howe, by whom it was first discovered. Closely allied to *Puccinia olida*, from which it differs in color—giving a purple hue to the eaf tissues.

CCINIA JUNCI, *Schw.*
Living stems of Juncus. Fort Edward. Howe.

CCINIA INVESTITA, *Schw.*
Living leaves of Gnaphalium. Fort Edward. Howe.

EDO RUBIGO, *DC.*
Living leaves of rye. Fort Edward. Howe. This and other pecies of *Uredo* are commonly called "*Rust.*"

EDO CARICINA, *DC.*
Leaves of sedges. Fort Edward. Howe.

EDO EPITEA, *Kunze.*
Leaves of willows. Fort Edward. Howe.

EDO POLYGONORUM, *DC.*
Leaves of Polygonum. Poestenkill. Howe.

EDO SOLIDAGINIS, *Schw.*
Leaves of Solidago and Aster. Fort Edward. Howe. Coney sland.

UREDO POTENTILLÆ, *DC.*
Leaves of *Potentilla canadensis.* Poestenkill. Howe.

UREDO RUBORUM, *DC.*
Leaves of Rubus. Fort Edward. Howe.

UREDO LUMINATA, *Schw.*
Leaves of Rubus. Common.

UREDO EFFUSA, *Strauss.*
Leaves, petioles and young branches of rose bushes. Fort Edwa
Howe. Sandlake.

UREDO LEGUMINOSARUM, *Link.*
Leaves of *Amphicarpæa monoica.* North Greenbush.

UREDO PYROLÆ, *Strauss.*
Under side of leaves of Pyrola. Common.

UREDO SALICETI, *Schlect.*
Leaves of willows. Fort Edward. Howe.

UREDO VIOLARUM, *DC.*
Leaves of violets. Fort Edward. Howe.

UROMYCES LESPEDEZÆ-VIOLACEÆ, *Schw.*
Leaves of *Lespedeza violacea.* Poestenkill. Howe. Bethleh

UROMYCES LESPEDEZÆ-PROCUMBENTIS, *Schw.*
Leaves of *Lespedeza procumbens.* Kingsbury. Howe.

UROMYCES HYPERICI, *Schw.*
Leaves of Hypericum. Fort Edward. Howe.

UROMYCES APICULOSA, *Lev.*
Leaves of Euphorbia. Kingsbury. Howe.

USTILAGO SEGETUM, *Pers.*
Heads of oats. Fort Edward. Howe. The species of Ustil
are popularly known by the name of "*Smut.*" Those that att
the cultivated grains are detrimental to the interests of the farm
often materially diminishing the quantity and quality of his crops

USTILAGO MAYDIS, *Corda.* (*Ustilago zeæ, Schw.*)
Flowers, fruit, etc., of Indian corn. Albany and Sandl
The *Corn Smut* is sometimes a serious pest. A field of corn c
under my observation the past season in which almost every

d been attacked, and at least one out of every four ears. This ld of corn, just before flowering time, appeared as thrifty and omising as any in the county.

LAGO JUNCI, *Schw.*
Heads of Juncus. Poestenkill. Howe.

LAGO URCEOLORUM, *DC.*
Seeds of *Carex pennsylvanica.* Center Station.

LAGO UTRICULOSA, *Nees.*
Seeds of Polygonum. Albany.

STELIA LACERATA, *Sow.*
Leaves and twigs of the thorn,—*Cratægus crus-galli.* North reenbush.

DIUM GROSSULARIÆ, *DC.*
Leaves of gooseberry, *Ribes cynosbati.* Sandlake.

DIUM COMPOSITARUM, *Mart.*
Leaves of Compositaceæ. Moreau. Howe.

DIUM GNAPHALIATUM, *Schw.*
Leaves of Gnaphalium. Moreau. Howe.

DIUM HOUSTONIATUM, *Schw.*
Leaves of Houstonia. Bethlehem.

DIUM SAMBUCI, *Schw.*
Petioles of elder,—*Sambucus canadensis.* West Albany and ndlake.

DIUM HYDNOIDEUM, *B. & C.*
Leaves of leatherwood,—*Dirca palustris.* Fort Edward. Howe. orth Greenbush.

TOPUS CANDIDUS, *Lev.*
Leaves of Amarantus. Poestenkill. Howe.

OCCUM MICROPUS, *Corda.*
Dead pumpkin vines. Poestenkill. Howe.

ERCULARIA GRANULATA, *Pers.*
Dead bark. Troy. Howe.

ERCULARIA VULGARIS, *Tode.*
Dead sticks and branches. Common.

TUBERCULARIA CONFLUENS, *Pers.*
Dead bark of currant. Troy. Howe.

SPOROCYBE CALICIOIDES, *Fr.*
Dead bark. Troy. Howe.

HELMINTHOSPORIUM MACROCARPON, *Grev.*
Bark of chestnut. Fort Edward. Howe.

HELMINTHOSPORIUM RECTUM, *B. & C.*
Dead wood. Fort Edward. Howe.

PODOSPORIUM RIGIDUM, *Schw.*
Leaves of Ampelopsis. Fort Edward. Howe.

POLYTHRINCIUM TRIFOLII, *Kunze.*
Living leaves of clover. Common.

CLADOSPORIUM HERBARUM, *Link.*
Dead leaves and stems of herbs. Fort Edward. Howe.

PENICILLIUM CRUSTACEUM, *Fr.*
Rotten apples. Poestenkill. Howe.

MORCHELLA ESCULENTA, *Pers.*
Ground under pines. Fort Edward. Howe. North Greenbu
and Bethlehem. Edible. The "*Morel.*"

HELVELLA ESCULENTA, *L.*
Ground in woods. Fort Edward. Howe. Edible.

GEOGLOSSUM HIRSUTUM, *Pers.*
Low wet ground. Poestenkill. Howe. Jordanville.

GEOGLOSSUM DIFFORME, *Fr.*
Wet ground. Poestenkill. Howe.

PEZIZA MACROPUS, *Pers.*
Ground in woods. Bethlehem and Adirondack Mountains.

PEZIZA SCUTELLATA, *L.*
Old wood. Fort Edward. Howe. North Elba.

PEZIZA CALYCINA, *Schum.*
Gum spots on spruce trees. Catskill Mountains. Bark of pi
Fort Edward. Howe.

ZIZA VITICOLA, *Pers.*
Dead grape vines in woods. Fort Edward. Howe. Rare.

ZIZA LENTICULARIS, *Bull.*
Bark of white oak. Fort Edward. Howe. Rare.

ZIZA TRANSLUCIDA, *B. & C.*
Fort Edward. Howe.

ZIZA CYATHOIDEA, *Bull.*
Wood and stems of herbs. Fort Edward. Howe. Sandlake.

ZIZA AGASSIZII, *B. & C.*
Trunks of trees—balsam firs. Mt. McIntyre.

ZIZA CITRINA, *Batsch.*
Rotten wood. Fort Edward. Howe. Catskill Mountains.

ZIZA HERBARUM, *Pers.*
Stems of herbs. Fort Edward. Howe.

ZIZA COMPRESSA, *A. & S.*
Dry wood. Fort Edward. Howe.

ZIZA FLEXELLA, *Fr.*
Pine wood. Fort Edward. Howe.

ZIZA TURBINATA, *Curt.*
Chestnut bark. Fort Edward. Howe, by whom it was first found in this country.

LENIA CANDIDA, *Pers.*
Rotten hemlock branches. Fort Edward. Howe.

COBOLUS CONGLOMERATUS, *Schw.*
Rotten wood. Troy. Howe.

LGARIA INQUINANS, *Fr.*
Black oak logs. Fort Edward. Howe.

LGARIA SARCOIDES, *Fr.*
Rotten wood. Catskill Mountains.

HINCTRINA TURBINATA, *Fr.*
On Pertusaria and dry fungus. Fort Edward. Howe.

PATELLARIA DISCOLOR, *Mont.*
Wood and stems of herbs. Troy and Fort Edward. Howe.

PATELLARIA RHABARBARINA, *Berk.*
Bark of alder. Troy. Howe.

URNULA CRATERIUM, *Fr.*
Rotten logs and sticks in woods. Fort Edward. Howe.

DERMATEA FASCICULARIS, *Fr.*
Oak branches. Poestenkill. Howe.

CENANGIUM SERIATIM, *Fr.*
Dead bark of white birch. Fort Edward. Howe, the first find it in this country.

CENANGIUM PINASTRI, *Fr.*
Bark of hemlock. Fort Edward. Howe.

CENANGIUM POPULINUM, *Schw.*
Bark of Populus. Fort Edward. Howe.

CENANGIUM RIBIS, *Fr.*
Dead branches of Ribes. Poestenkill. Howe.

DICHÆNA FAGINEA, *Fr.*
Bark of beech trees. Common.

RHYTISMA SOLIDAGINIS, *Schw.*
Leaves of Solidago. Common.

RHYTISMA ACERINUM, *Fr.*
Leaves of red maple. Common.

RHYTISMA DECOLORANS, *Fr.*
Leaves of *Andromeda ligustrina.* Sandlake.

RHYTISMA VACCINII, *Fr.*
Leaves of Vaccinium. Fort Edward. Howe.

RHYTISMA PRINI, *Fr.*
Leaves of Prinos. Sandlake.

RHYTISMA PUNCTATUM, *Fr.*
Leaves of maple. Fort Edward. Howe. Sandlake.

TISMA SALICINUM, *Fr.*
Leaves of willow. Fort Edward. Howe.

TISMA BLAKEI, *Curt.*
Leaves of Rubus. Fort Edward. Howe.

CIDIUM CORONATUM, *Fr.*
Dry leaves of oak and chestnut. Fort Edward. Howe.

CIDIUM CRUSTACEUM, *B. & C.*
Dead branches of pines. Fort Edward. Howe.

TERIUM ELONGATUM, *Wahl.*
Dry wood and old branches. Poestenkill and Fort Edward. owe.

TERIUM HIASCENS, *B. & C.*
Bark of white oak. Fort Edward. Howe.

TERIUM LINEARE, *Fr.*
Old wood and rails. Poestenkill. Howe. Helderberg Mts.

TERIUM PINASTRI, *Schrad.*
Dead pine leaves. Poestenkill. Howe.

ARIA POLYMORPHA, *Pers.*
Rotten wood. Common and variable.

ARIA HYPOXYLON, *Ehrh.*
Old wood and stumps. Fort Edward. Howe. Helderberg Mts.

OCREA LACTIFLUORUM, *Schw.*
On Lactarius. Fort Edward. Howe. Sandlake.

OCREA CITRINA, *Fr.*
ead sticks in woods. Fort Edward. Howe.

OCREA RUFA, *Pers.*
Dead wood. Moreau. Howe.

OCREA RICHARDSONII, *B. & M.*
Bark of pines and oaks in woods. Fort Edward. Howe.

OXYLON USTULATUM, *Bull.*
Old trees and stumps. Fort Edward. Howe. Helderberg Mts.

HYPOXYLON NUMMULARIUM, *Bull.*
Bark of maple. Fort Edward. Howe.

HYPOXYLON CLYPEUS, *Schw.*
Oak bark. Fort Edward. Howe.

HYPOXYLON MULTIFORME, *Fr.*
Old wood and bark. Fort Edward. Howe.

HYPOXYLON COHÆRENS, *Pers.*
Old logs and trees. Fort Edward. Howe. Adirondack Mts.

HYPOXYLON FUSCUM, *Pers.*
Dead branches. Fort Edward. Howe.

HYPOXYLON FRAGIFORME, *Pers.*
Beech bark. Fort Edward. Howe.

HYPOXYLON RUBIGINOSUM, *Pers.*
Rotten wood. Fort Edward. Howe.

HYPOXYLON SERPENS, *Pers.*
Dead wood. Fort Edward. Howe.

DIATRYPE STIGMA, *Fr.*
Bark and wood of elm trees. Fort Edward. Howe.

DIATRYPE DISCIFORMIS, *Fr.*
Trunks of trees and dead sticks. North Greenbush and Cats Mts.

VALSA NIVEA, *Fr.*
Dead Populus. Catskill Mts.

VALSA STILBOSTOMA, *Fr.*
Branches of trees. Fort Edward. Howe.

VALSA AMERICANA, *B. & C.*
Branches of trees. Fort Edward. Howe.

VALSA CONSTELLATA, *B. & C.*
Bark. Fort Edward. Howe.

NECTRIA CINNABARINI, *Fr.*
Bark and dead branches of trees—also parasitic on *Tubercul confluens.* Troy. Howe.

CTRIA CUCURBITULA, *Fr.*
Dead branches of birch. Fort Edward. Howe.

LÆRIA OVINA, *Pers.*
Dry Wood. Poestenkill. Howe.

LÆRIA PULVIS-PYRIUS, *Pers.*
Oak wood. Poestenkill. Howe.

LÆRIA MYRIOCARPA, *Fr.*
Dry wood. Poestenkill. Howe.

LÆRIA PAPILLA, *Schw.*
Bark of Alnus. Fort Edward. Howe.

LÆRIA PERTUSA, *Pers.*
Dead wood. Poestenkill. Howe.

LÆRIA FISSURARUM, *B. & C.*
Pine wood. Poestenkill and Fort Edward. Howe.

LÆRIA SAUBINETI, *Mont.*
Stems of corn and rye. Poestenkill. Howe.

LÆRIA PICEA, *Pers.*
Stems of herbs. Poestenkill. Howe.

ÆRIA ULMEA, *Schw.*
Leaves of elms. Fort Edward. Howe.

ÆRIA LESPEDEZÆ, *Schw.*
Leaves of Lespedeza. Kingsbury. Howe.

ÆRIA ROSTRATA, *Fr.*
Wood and bark. Kingsbury. Howe.

ÆRIA LIMÆFORMIS, *Schw.*
Bark of oak and chestnut. Fort Edward. Howe.

ÆRIA ACULEATA, *Schw.*
Stems of herbs. Fort Edward. Howe.

ÆRIA ACUMINATA, *Sow.*
Stems of Chenopodium. Poestenkill. Howe.

ÆRIA NIGRELLA, *Fr.*
Stems of Ambrosia. Poestenkill. Howe.

SPHÆRIA VERBASCICOLA, *Schw.*
Stems of Verbascum. Poestenkill. Howe.

SPHÆRIA POTENTILLÆ, *Schw.*
Leaves of *P. canadensis.* Fort Edward. Howe.

SPHÆRIA PUNCTIFORMIS, *Pers.*
Dead leaves. Fort Edward. Howe.

SPHÆRIA FUSCA, *Pers.*
Dead branches among leaves. Fort Edward. Howe.

SPHÆRIA DISCIFORMIS, *Hoffm.*
Dry sticks in open fields. Poestenkill. Howe.

SPHÆRIA CORYLI, *Batsch.*
Leaves of Corylus. Fort Edward. Howe.

SPHÆRIA FIMBRIATA, *Pers.*
Leaves of Carpinus and Ostrya. Fort Edward. Howe.

SPHÆRIA QUERCINA, *Pers.*
Fort Edward. Howe.

SPHÆRIA EPIDERMIDIS var. MICROSCOPICA, *Desm.*
Bark of cherry trees. Fort Edward. Howe.

SPHÆRIA DESMAZIERII, *B. & Br.*
Under side of branches lying on the ground. Fort Edw
Howe.

SPHÆRIA SORDARIA, *Fr.*
Bark of Populus. Fort Edward. Howe.

MICROSPHÆRIA PENICILLATA, *Lev.*
Leaves of Viburnum. Fort Edward. Howe.

DOTHIDEA OMANS, *Schw.*
Stems of Asclepias. Moreau. Howe.

DOTHIDEA BETULINA, *Fr.*
Leaves of Betula. Fort Edward. Howe.

SIPHE COMMUNIS, *Schlect.*
Living leaves. Fort Edward. Howe.

SIPHE CEANOTHI, *Schw.*
Leaves of Ceanothus. Fort Edward. Howe.

ERINA GAULTHERIÆ, *Curt.*
Under side of leaves of wintergreen—*G. procumbens.* Common.

NEUM FAGINEUM, *Pers.*
Beech leaves. Fort Edward. Howe.

NEUM LUTEOLUM, *Kunze.*
Maple leaves. Fort Edward. Howe.

NEUM ALNIGERUM, *Kunze.*
Alder leaves. Fort Edward. Howe.

NEUM AUREUM, *Pers.*
Birch leaves. Fort Edward. Howe.

NEUM VITIS, *DC.*
Grape leaves. Poestenkill. Howe.

EROTIUM OROBANCHES.
Dead stems of *Epiphegus virginiana.* Fort Edward. Howe. Rare.

EROTIUM VARIUM.
Dead vegetables. Fort Edward. Howe.

EROTIUM POPULINUM, *Pers.*
Leaves of Populus. Fort Edward. Howe.

TILBUM REHMIANUM, *Rabenh.*
Gum spots on bark of spruce trees. Catskill Mountains.

AZEA BRUNNEA, *B. & C.*
Leaves of maple. Jordanville.

AZEA CRUENTA, *Fr.*
Leaves of Solomon's seal—*Smilacina racemosa.* North Greenbush.

NEW STATIONS OF RARE PLANTS—REMARKABLE VARIETIES AND OBSERVATIONS.

THALICTRUM PURPURASCENS, *L.*

Plentiful on the sandy barrens between Albany and Schenectad

DENTARIA MAXIMA, *Nutt.*

Angola, Erie county. G. W. Clinton.

VIOLA CUCULLATA var. CORDATA, *Gray.*

North Greenbush.

VIOLA CUCULLATA var. LONGIPES.

Cedar swamps of South Herkimer county. Gilbert. In accor ance with the suggestion of Mr. Gilbert I have ventured to gi this variety a name. It is characterized by its very long scap (8′–12′ in length) much surpassing the small, thick leathery leav and by its large flowers, nearly always white or variegated.

VIOLA PUBESCENS var. SCABRIUSCULA, *T. & G.*

Shaded banks. North Greenbush.

VIOLA TRICOLOR var. ARVENSIS, *DC.*

Mr. Gerard finds this plant on a hill near Poughkeepsie, app ently native there.

HYPERICUM CANADENSE var. MAJOR, *Gray.*

Shore of Bowman's pond, Sandlake.

MALVA MOSCHATA, *L.*

Meadows. Sandlake. Roadsides, southern towns of Herkin county; quite plentiful there, and oftener with white than w rose-colored flowers.

POTENTILLA FRUTICOSA, *L.*

Newburgh. Gerard.

LONICERA SEMPERVIRENS, *Ait.*

Bald Mountain, near Lansingburgh. Brainerd.

SEDUM TELEPHIOIDES, *Michx.*

West shore of Seneca Lake. Wright. Not a new station one previously involved in some doubt.

KRIGIA VIRGINICA, *Willd.*

Bethlehem.

ARIA VULGARIS var. PELORIA.

Poughkeepsie. Gerard.

BELIA SYPHILITICA, *L.*

Poughkeepsie; with white flowers. Gerard.

ODODENDRON MAXIMUM, *L.*

White's corners, Erie county. D. F. Day.

YSOSTEGIA VIRGINIANA, *Benth.*

Shore of Lake Champlain, one mile south of Westport.

HIUM VULGARE, *L.*

Becoming too common in the eastern part of the State. Farmers would do well to look upon this showy but rough plant as an unwelcome intruder on their lands.

NTIANA SAPONARIA var. LINEARIS, *Gray.*

Common in the Adirondack region, where it occasionally bears white flowers.

TICE LIMONIUM, *L.*

Astoria. A white-flowered variety.

LFFIA COLUMBIANA, *Karsten.*

Near Catskill. T. F. Allen.

NICHELLIA PALUSTRIS, *L.*

Lake Champlain at Westport.

ODYERA MENZIESII, *Lindl.*

Woods. North Elba.

RIPEDIUM ARIETINUM, *R. Brown.*

Swamp near Summit Lake, bearing pure white flowers. Gilbert.

CUS ARTICULATUS, *L.*

Wet places, West Albany.

RIS FLEXUOSA var. PUSILLA, *Gray.*

Cranberry marsh, Sandlake.

ERUS GRAYII, *Torr.*

Port Kent, on the farm of Hon. W. C. Watson. Dr. Howe ends from Fort Edward a variety without rays, the spikes being ll in a single sessile head.

CAREX GYNOCRATES var. SUBSTAMINATA.

Cedar swamps, Jordanville. In this form a single perigyniu occurs at the base of the staminate spike. Specimens were fou with the spikes wholly staminate, but none were seen wholly p tillate.

CAREX SCIRPOIDEA, *Michx.*

This rarely produces an additional small spike at the base of t principal one.

CAREX SICCATA, *Dew.*

Plentiful on the top of Bald Mountain, Rensselaer county.

CALAMAGROSTIS CANADENSIS, *Beauv.*

Specimens bearing *ergot* were found at the base of Mt. McInty eight miles from any cleared land, from which it is probable th the production of *ergot* is independent of any influence from cul vation.

This grass grows abundantly in the low grounds and on t "*beaver meadows*" of Essex and Franklin counties, and is cut f hay to the extent of many tons.

ONOCLEA SENSIBILIS var. OBTUSILOBATA, *Torr.*

A form closely approaching this rare variety was found in San lake by Dr. Howe. The pinnæ of one side of the frond are mo contracted than those of the other side; all are sinuate pinnatif but the pinnules are broadest at the base. The fruit is not w developed.

ASPLENIUM EBENEUM var. INCISUM, *Howe.*

Poestenkill. Howe. In this form the pinnæ are about one in long, and all except the extreme upper and lower ones are deep incised—pinnatifid; the pinnules are rather strongly 3–5 crena toothed. I have thought best to give it the name suggested by discoverer.

ISOETES ECHINOSPORA var. BRAUNII, *Engelm.*

Poestenkill. Howe.

SPHAGNUM CYMBIFOLIUM var. CONGESTUM, *Bryol Europ.*

On all the high peaks of the Adirondack Mts. Its compa growth and numerous dense branches probably serve in some me ure to protect it from the rude assaults of the violent winds which it is exposed. The same mode of growth and dense ra fication is also observed in *S. acutifolium* and other species gro ing in these elevated exposed situations.

DICRANUM RUFESCENS, *Turn.*

Banks by roadsides. Catskill Mts.

RANUM SCHREBERI, *Hedw.*
Banks near Little Falls. Austin.

RANUM SPURIUM, *Hedw.*
Woods. Poestenkill.

SIDENS EXIGUUS, *Sullv.*
Danube, Herkimer county. Austin.

RBULA FALLAX, *Bryol Europ.*
Little Falls. Austin.

THOTRICHUM OBTUSIFOLIUM, *Schrad.*
Stone walls. Herkimer county.

TCHOMITRIUM INCURVUM, *Schwægr.*
Peekskill. (M. Leroy legit.) Austin.

PNUM NITENS, *Schreb.*
Fort Edward. Howe. A remarkable form with curved branches nd secund-falcate leaves.

VALIA RUPESTRIS, *Nees.*
Rocks. Little Falls.

MALDIA BARBIFRONS, *Raddi.*
Bethlehem.

ULARIA VULGARIS, *Mich.*
Conservatories. Buffalo. Clinton.

BOULIA HEMISPHÆRICA, *Raddi.*
Ravines near Albany.

n concluding this report grateful acknowledgments are ren-ed to Profs. A. Braun, W. S. Sullivant, E. Tuckerman and Rev. A. Curtis for much aid in the determination, by duplicate speci-ns, of species belonging to the orders which they have respectively de a specialty. It is also added, by request of Dr. Howe, that specimens of fungi contributed by him have all passed, by dupli-e, under the inspection of Dr. Curtis.

t is desirable that any interesting observations on the flora of our te be promptly communicated, and that good specimens of any species or marked varieties be forwarded for the Herbarium.

In the preceding list, when no name is annexed to the station stations, the plant has been found therein by the writer.

Dates given in the list of mosses signify the time of maturing t fruit; in the lists of algæ and fungi, the time of collecting; and, some extent, therefore, they indicate the time of the occurrence the species. Much observation is yet necessary to enable us determine their time of maturity fully and accurately. Most of t lichens, some algæ and many fungi, may be found at all seasons.

Respectfully yours,

C. H. PECK.

ALBANY, *Jan. 9th*, 1869.

(E.)

ETEOROLOGICAL REPORT FOR THE YEAR 1868.

By Clinton L. Merriam, Leyden, N. Y.

Thermometer.

	6 and 7 A. M.	Meridian.	6 and 7 P. M.	Average.
anuary,	14°56′	18°46′	19°07′	17°34′
ebruary,	10 62	15 28	11	12 30
Iarch,	29 03	37 36	30 80	32 39
pril,	34 10	43 60	35 24	37 64
Iay,	50 46	61 50	53 40	55 12
une,	57 53	67 24	65 14	63 30
uly,	67 48	81 06	72 25	73 59
ugust,	59 67	72 80	71 93	68 13
eptember,	51 86	57 19	53 68	54 27
ctober,	37 61	45 41	43 12	42 04
Tovember,	31 10	35 13	33 36	33 19
December,	16 80	21 14	19 93	19 49
Mean,	38°40′	46°34′	42°41′	42°40′

	Snow.	Rain.	Barometer.
anuary,	37 inches.	None.	26°06′
ebruary,	40 "	"	29 25
Iarch,	25 "	1 inch.	29 13
pril,	21 "	.55 "	29 34
Iay,	.....	4.15 "	28 94
une,	.....	3.57 "	28 95
uly,	.....	2.20 "	28 87
ugust,	.....	3.68 "	29 01
eptember,	.....	5.50 "	29 10
ctober,	2 "	1.10 "	29 35
Tovember,	7 "	8.40 "	29 21
December,	98 "	None.	29 20
Mean,	19 ft. 2½ in.	30 35-100 in.	29°12′

Mean for entire year, 1868, Thermometer, 40°40′.

Mean for entire year, 1868, Barometer, 29°12′.

Warmest day, July 13th, Thermometer marking 96° in shad 126° in sun.

Coldest day, February 3d, Thermometer marking 14 minus.

Range 110°. Range February 11th, in 12 hours, 44°.

Fall of snow, 19 feet 2½ inches.

Fall of rain, 30 35–100 inches.

Marked absence through the year of electricity—as compare with former years—both in north Polar lights and thunder storms.

A large body of snow lay over the country through January an February, measuring here, in the woods, at times, six feet.

March 2d, 3d and 6th, crown of winter storm days. Cars detaine in snow drifts.

March 7th, thaw begins. Wind south. Snow settles 6 to 1 inches daily, until bare earth spots appear. One more fence boar visible daily.

Birds, beguiled by our apparent Spring, come and sing sweetly a in June.

March 21st, heavy snow storm over New England, New York an Philadelphia—two feet reported in Philadelphia.

April 8th, 10 inches snow falls, covering earth food, and man birds starve and die—not "froze to death," as many suppose. B careful feeding, those here remained and survived to bless us in a summer song—generous payment!

Atmosphere heavy with smoke through July, from fires raging o timber lands in Canada and the "North woods."

Summer more than usually favorable to growth of fruit, vegetable and grass.

(F.)

ARLY OBSERVATIONS UPON MAGNETIC VARIATIONS.

By Franklin B. Hough, of Lowville, N. Y.

Although the theory and laws of secular changes in the declination the magnetic needle are receiving careful study at various special servatories, we cannot hope to arrive at precise results until our cords have extended over a considerable period of time. Early servations will, therefore, when made with sufficient care, possess eat interest, as affording subjects for comparison, besides the positive ta which they afford in deciding disputed boundaries, where the cision may depend upon the actual amount of variation from the e meridian, at the time of survey.

With the view of aiding this study, and to place a class of facts on this subject within reach of those interested in it, I have colted a number of records never before published, from surveys and servations made a little before the beginning of this century, and l here present them, with such prefatory remarks as the data ows.

Castorland Survey. 1794.

The "Castorland Tract," owned by a Parisian company, and upled with a romantic but abortive scheme of settlement with mmon interests, was located on the east and north sides of Black ver, in Lewis and Jefferson counties. It was surveyed in 1794–6, l in the beginning, under the direction of Pierre Pharoux, a comtent engineer and practical astronomer, who perished by being ried over the falls of the Black River, in the present city of atertown, in September, 1795. In the journal of this survey the cessity of running lines of lots by the true meridian, is strongly ged, on account of the uncertainty of the compass, from secular iations and local attractions. In their discussions with the proetors this point is insisted upon, but was never carried out. Two uable observations made by Pharoux deserve permanent record. e first was made at the house of Baron Steuben, in Herkimer, now eida Co., June 16th, 1794. The latitude was found by astronomi observations, carefully verified, to be 43° 16′; and the variation, given by three different instruments, was 3° 58′ west. The second s made a mile and a half below the head of the "Long Falls," v *Carthage*, Jefferson Co., August 5th–13th, 1794, at a locality n named, and often afterwards mentioned, as "Meridian Rock." e latitude was ascertained to be 44° 9′ 26″, and the variation, by

repeated observations, 2° 40′ west. It was suspected that a slig local attraction was due to the rock, but this being a constant, wou not affect the accuracy of subsequent comparative observations that place.

Holland Land Company's Purchase. 1798–9.

The original field books of this survey are, by law, deposited the Secretary's office at Albany for preservation, and afford abou hundred and forty observations of magnetic variations, with the da of observation, names of surveyors, and place, as designated by rang and lot lines. This survey was made under the general direction Mr. Joseph Ellicott, an engineer of excellent reputation. We ha no record of the methods by which the true meridian was ascertaine nor of the accuracy of the instruments or the care with which t variation was ascertained.

Concerning the uncertainties arising from this cause, Mr. Ellicott, a semi-official document prepared as an explanation of his survey remarks:

"The difference that is discernable in the size of the seve townships is occasioned by the variation of the needle, which, fro certain occult causes, is found to differ essentially between any tw stations that may be fixed on, and much more between some statio than others. Hence, in taking the magnetic courses of any two tow ships, it will follow that a disproportion in size of the several tow ships will necessarily arise, as the needle is seldom known to preser a uniform position between places but a few hundred yards fro each other; so that inaccuracies will arise though the greatest circu spection should be observed in correcting courses."

This survey was made by ranges and townships. The ranges we numbered from the east line of the tract towards the west, and were t teen in number. The townships were numbered from the State li of Pennsylvania northward to Lake Ontario, and extended to sixte in number. The accompanying map will exhibit the lines of t original townships and the corresponding divisions by towns a counties, as now organized.

AGNETIC VARIATION AS OBSERVED IN THE SURVEY OF THE TRACT OF THE HOLLAND LAND COMPANY, OF WESTERN NEW YORK, IN 1798 AND 1799.

PLACE.	Variation.	Date.	Observer.
ange 1, Township 8–9,	0°40′ W.	1799,	James Dewey.
" 2, " "	0 50 W.	"	" "
" 1, " 7–8,	1 14 W.	"	" "
" 2, " "	1 5 W.	"	" "
" 3, " "	0 5 E.	"	" "
" 4, " "	2 5 W.	"	" "
" 5, " "	0 30 W.	"	" "
" 2, " 8–9,	0 10 E.	"	" "
" 3, " "	2 5 E.	"	" "
" 4, " "	0 30 W.	"	" "
" 3, " 9–10,	0 30 W.	"	" "
" 4, " "	1 45 W.	"	" "
" 5, " "	1 45 W.	"	" "
" 1, " 11–12,	1 10 W.	"	" "
" 1, " 10–11,	0 40 W.	"	" "
" 2, " "	1 28 W.	"	" "
" 1, " 9–10,	0 20 W.	"	" "
" 2, " "	0 40 W.	"	" "
" 4–5, " 9–10,	0 15 W.	"	" "
" 4–5, " 10,	0 30 W.	"	" "
" 4–5, " 10,	0 25 W.	"	" "
" 4–5, " 11,	0 10 W.	"	" "
" 2, " 10–11,	0 15 W.	"	" "
" 4, " "	0 10 W.	"	" "
" 3, " "	0 20 W.	"	" "
Shore of Lake Ontario:			
ownship 15, Willink's strip, E. line,	0 45 W.	"	" "
" 15, " " W. line,	0 30 W.	"	" "
onawanda Reservation, N.W. cor.,	1 30 W.	" Feb'y,	John Thompson.
n Lake Erie, Monument, lat. 42° 16′ 16″ W.	0 25 W.	1790, Aug. 23.	Andrew Elliott.
ffalo Reservation, Lake shore,	0 30 W.	1798,	Augustus Porter.
d Kana-andea (Caneadea),	1 00 W.	"	" "
rdeau Reservation,	1 35 W.	" Sept. 6,	" "
uawkey Hill Reservation,	0 00	" Sept. 18,	" "
g Tree Reservation,	0 15 W.	" Sept. 24,	" "
nawagus Reservation,	1 00 W.	" Sept. 30,	" "
n Lake Erie, W. line of State,	0 25 E.	" Aug. 30,	James Smedley.
" " 14 Range, 3d mile,	0 20 E.	" "	" "
" " 13 " 6th mile,	0 20 E.	" "	" "
" " 11 " 1st mile,	0 42 E.	" "	" "
" " 9 " 1st mile,	0 44 E.	" "	" "
n Lake Ontario, 1 R., E. transit,	1 00 W.	1799,	Amzi Atwater.
" " 3d meridian,	0 20 W.	"	" "
" " 4th meridian,	4 45 W.	"	" "
ange 9–10, Township 2,	1 00 E.	1798,	" "
" 9–10, " 3,	0 55 E.	"	" "
" 9–10, " 4,	0 50 E.	"	" "
" 9–10, " 5,	0 30 E.	"	" "
ange 13, " 5–6,	0 35 E.	"	" "
" 11, " 5–6,	0 40 E.	"	" "
" 10, " 5–6,	1 15 E.	"	" "
" 10, " 5–6, (S. end)	1 10 E.	"	" "
" 9, " 6–7,	0 40 E.	" Aug. 7,	" "
" 9–10, " 7,	0 30 E.	"	" "
" 10, " 7–8,	0 45 E.	"	" "
ake Erie, and line of Township 7–8,	0 45 E.	"	" "
ange 3–4, Township 7–8,	0 10 W.	"	" "
" 3–4, " 3,	0 15 W.	"	" "
" 3–4, " 4,	0 25 W.	"	" "
" 1–2, " 1, (Pa. line)	0 35 W.	"	" "
" 1–2, " 1,	0 45 W.	"	" "
" 1–2, " 2,	0 40 W.	"	" "
" 1–2, " 2,	0 45 W.	"	" "

MAGNETIC VARIATIONS, &c.—*Continued.*

PLACE.	Variation.	Date.	Observer.
Range 1-2, Township 2,	0°15′ W.	1798,	Amzi Atwater.
" 1-2, " 3,	0 25 W.	"	" "
" 1-2, " 3,	0 55 W.	"	" "
" 1-2, " 4,	1 10 W.	"	" "
" 1, " 5-6,	1 50 W.	"	" "
" 1-2, " 5,	1 25 W.	"	" "
" 1-2, " 6,	0 20 W.	"	" "
" 1-2, " 7,	0 55 W.	"	" "
" 1-2, " 8,	1 10 W.	"	" "
" 1-2, " 9,	0 30 W.	"	" "
" 2-3, " 6,	1 45 W.	"	" "
" 2-3, " 7,	2 00 W.	"	" "
" 2-3, " 8,	0 45 W.	"	" "
" 2-3, " 9,	0 50 W.	"	" "
" 2-3, " 10,	0 00	"	" "
" 2-3, " 11,	0 10 W.	"	" "
" 7, " 11-12,	2 45 W.	1799,	" "
" 7, " 11-12,	1 40 W.	"	" "
" 6, " 11-12,	1 35 W.	"	" "
" 6, " 12-13,	1 25 W.	"	" "
" 8, " 12-13,	1 35 W.	"	" "
" 8, " 13-14,	0 50 W.	"	" "
" 7, " 13-14,	1 35 W.	"	" "
" 6, " 13-14,	1 25 W.	"	" "
On Lake Ontario, Range 8,	0 10 E.	"	" "
Range 5, Township 15-16,	1 40 W.	"	" "
" 6, " 15-16,	1 35 W.	"	" "
Pa. line, 12 miles from Wm. Phelps':			
Gorham Purchase,	0 15 W.	1798,	George Burges.
Range 1, Township 5,	1 00 W.	"	" "
" 1, " 8, 43 m. from Pa.,	0 10 E.	"	" "
" 1, " 4, 7 " "	0 55 W.	"	" "
" 1, " 5, 2 " "	0 55 W.	"	" "
" 1, " 5, 5 " "	1 35 W.	"	" "
" 1, " 11,	1 45 W.	"	" "
" 1, " 12,	0 35 W.	"	" "
" 1, " 12, (70 m. Pa.),	0 5 W.	"	" "
" 1, " 12-13, 72 "	0 00	"	" "
" 1, " " 73 "	0 5 W.	"	" "
" 1, " " 74 "	0 35 W.	"	" "
" 1, " 13, 76 "	0 15 W.	"	" "
" 1, " 13, 78 "	0 40 W.	"	" "
" 1, " 14, 83 "	1 20 W.	"	" "
" 1, " 14, 84 "	2 5 W.	"	" "
" 1, " 15, 86 "	1 55 W.	"	" "
" 1, " 15, 88 "	1 50 W.	"	" "
" 1, " 16, 91 "	1 30 W.	"	" "
N. Line, Tp. 2, Range 3,	1 9 W.	"	Augustus Porter
Range 8, Township 15,	0 15 W.	1799,	Stph. Benton, Jr.
" 7, " 15,	0 30 W.	"	" "
" 6, " 16,	0 45 W.	"	" "
" 4-5, " 1, Pa. line,	1 00 W.	1798,	James Smedley.
" 4-5, " 4-5,	1 02 W.	"	" "
" 3, " 2-3,	0 40 W.	1799,	Stph. Benton, Jr.
" 2, " "	0 40 W.	"	" "
" 1, " "	0 40 W.	"	" "
" 1, " 3-4,	0 55 W.	"	" "
" 2, " "	0 55 W.	"	" "
Transit meridian, 24th mile,	2 5 W.	"	" "
Range 1, Township 3,	0 55 W.	"	" "
" 1, " 4-5,	2 5 W.	"	" "
" 1-2, " 5,	1 45 W.	"	" "
" 2, " 4-5,	0 40 W.	"	" "
" 3, " "	3 20 W.	"	" "
" 4, " "	0 20 E.	"	" "
" 4-5, " 2,	0 50 W.	1798,	James Smedley
" 4-5, " 2,	0 40 W.	"	" "
" 4-5, " 3,	1 00 W.	"	" "

MAGNETIC VARIATIONS, &c.—*Continued.*

PLACE.	Variation.	Date.	Observer.
ıge 4–5, Township 4,	1 20 W.	1798,	James Smedley.
4–5, " 5,	1 40 W.	"	" "
4–5, " 5,	1 43 W.	"	" "
4–5, " 6,	3 13 W.	"	" "
4–5, " 6,	2 00 W.	"	" "
4–5, " 7,	1 5 W.	"	" "
4–5, " 8,	1 50 W.	"	" "
4–5, " 9,	2 10 W.	"	" "
4–5, " 10,	1 40 W.	"	" "
4–5, " 11,	1 20 W.	"	" "

iver St. Lawrence.—In addition to the foregoing, from manuscript ords, I find upon the official survey of the River St. Lawrence, n Lake Ontario to the Galop Rapid, by Captain W. F. W. Owen, N., published in 1818 in five sheets, the following variations indi-ed:

oint Yeo, at the southwestern end of Wolf Island, or Grand nd as called on some maps: var. 2° 30′ W.

uebec Head, at the N. E. or lower extremity of the same island: 2° 45′ W.

arthrust Island, or Grenadier Island, upper end: var. 2° 50′ W.

outh of Chippewa Creek: var. 3° W.

oint two Miles above Ogdensburgh: var. 3° 30′ W.

pon the British official chart of Lake Ontario, by the same author, 817, corrected to 1863, it is said, "variation in 1861 increasing nnually."